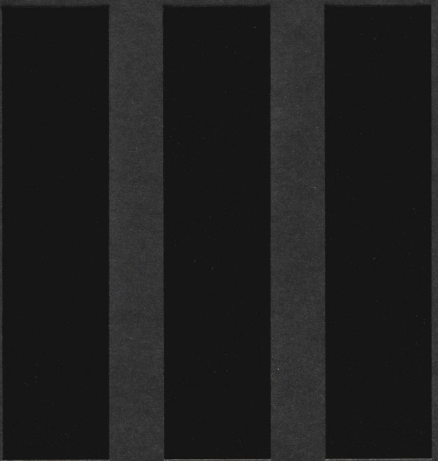
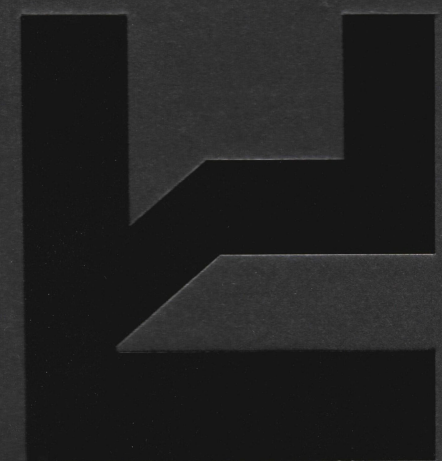
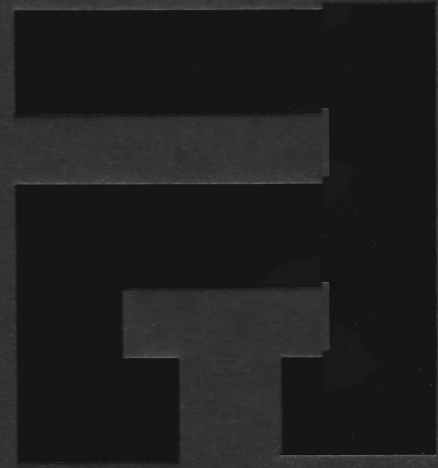
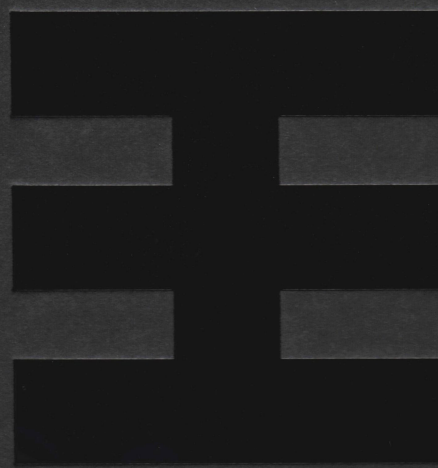
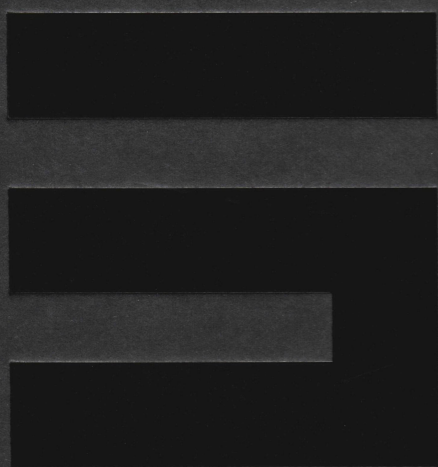
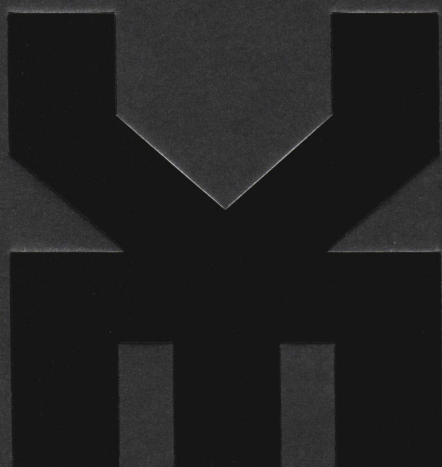


GUERRILLA GAMES
CELEBRATING
15 YEARS OF
KILLZONE
AMSTERDAM | CAMBRIDGE

KILLZONE

BY KBG GUIDES VISUAL DESIGN



KILLZONE

VISUAL DESIGN

BY KBG GUIDES

GUERRILLA GAMES
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KILLZONE

VISUAL DESIGN



WELCOME_

Dear reader,

November 2015

It's hard to believe that fifteen years have passed since we started development on the first *Killzone* game. Of course, when we first started we had no way of knowing Killzone would evolve into a full-fledged franchise spanning six games, numerous cross-overs, a line of collectible action figures, and a novelization. We did, however, daydream about releasing a book that would document the splendor of its visual designs.

We're thrilled that this idea has finally come to fruition – and to great satisfaction, I might add. What you hold in your hands is a comprehensive visual design history of the entire *Killzone* series, told through hundreds of images ranging from concept sketches to in-game renders, and from key art to abandoned ideas.

Unearthing the images from our archives has been a memorable experience of itself. We waxed nostalgic at early concepts, admired long-forgotten gems, and marveled at the sheer amount of material available. This book proves that fifteen years really have gone by, and we hope the fun we had during that time reflects on its pages.

While visual design played a key role in realizing the world of *Killzone*, this series wouldn't exist without the many other disciplines required to bring it to life on game consoles. To the hundreds of developers who worked hard to realize these games throughout the years, I say: this is your book too.

Hermen Hulst

Managing Director Guerrilla Games

I've worked with the talented people at Guerrilla Games for years, and am proud they are part of Sony Computer Entertainment. The deep designs of the Killzone universe have always appealed to me as a gamer, and it is with great pleasure I see them explained in-depth in this volume.

Shuhei Yoshida

President of Sony Worldwide Studios



ABOUT THIS BOOK

This book is about the *Killzone* video game series; blockbuster shooter games for console. Six *Killzone* titles have been launched throughout the last dozen years, and both the franchise and its overarching sci-fi ‘universe’ are loved by millions of players, who spend a countless number of hours playing them. Although the series technically pits humans against other humans, the bad guys – a race called the ‘Helghast’ – are notorious for their sub-human behavior.

The book focuses on the design side of the *Killzone* series. Creator Guerrilla Games, based in Amsterdam, the Netherlands, hardly does ‘game art’ in the traditional sense. While other big production houses support teams of game artists, Guerrilla has a ‘visual design team’ responsible for the look-and-feel of the game, with a radically different approach to game design.

Typically, a big video game production would start with lead artists drawing concept art of in-game objects. Others then work from these sketches and flesh out the details. Concept art (‘key art’) is often artful and impressionistic: a studio needs an artistic vision to get things started, not a completely established game world. Guerrilla’s ‘vis team’ starts by investigating the object they want to design, looking into its functions. Next, they research known technologies that perform the same tasks as their object, and start thinking about solutions that would work well within their game’s universe. It’s only after this exercise that they start designing the object itself. Even at this stage, aesthetics are of secondary importance: the aim is to create a functional design of realistic-looking object with a twist, of course. After all, *Killzone* is still a sci-fi universe.

It makes for a design philosophy that is common in the world of design, but quite unique to the gaming world: form follows function. Guerrilla’s visual designers take that quite seriously: they will keep tinkering with the design of an in-game weapon until everyone is satisfied it acts like a real, yet futuristic gun. Vehicles are designed from the inside out, following design patterns of real world automobile design studios. First, they establish the vehicle’s function (for example, troop transport), consider how many people it should hold and where the driver should be, as well as thinking about propulsion systems: steering, braking, and the spatial properties of all its parts.

Then – and only then – do they design the exterior and add some of that *Killzone* flavor: Helghast markings, camouflage patterns, et cetera. The end result is an in-game vehicle that looks like something you have never seen before, but still feels like it would actually work, would it exist in our world.

This book takes you through the many design aspects that come with building a video game world. The opening chapters explain the history of *Killzone* and Guerrilla Games, to get you up to speed about the cultural, technical, and design backgrounds of the *Killzone* games and the studio that built them.

Next, you’ll find chapters on vehicle and weapon design, on the development of delivery drones, maintenance spiders, and everything in between. Other chapters deal with the environments these objects move through: the ‘world building’ of digital cities, jungles, and wastelands the players encounter. The dualism that drives the *Killzone* universe takes center stage throughout the book: warring factions ‘Helghast’ and ‘ISA’ each have their own distinguished design makeup.

Later chapters deal with the way video game design influences the shape in-game objects are allowed to take: for example, the specific dimensions of a piece of furniture that doubles as a cover object.

We would like to thank Guerrilla Games and Sony Computer Entertainment Europe for the opportunity to access their archives and interview their staff at Guerrilla Games in Amsterdam. We greatly appreciate the amount of trust Guerrilla Games placed in us by making available the two terabyte of data that is the image archive of the *Killzone* universe: it was truly a fantastic experience.

We hope you enjoy reading this book as much as we enjoyed compiling it.

Maarten Brands & Arjan Terpstra

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KILLZONE VISUAL DESIGN

A HISTORY

This text, taken from a *Killzone* internal style guide, was written in 2009. Three *Killzone* games had been built by that time, and work had started on yet another one. Guerrilla Games had grown from a few dozen people to a development team of 120, and felt the need to lay down 'established ideas with regards to the *Killzone* look and feel.' 'This style guide provides a framework of guidelines that function as a starting point for new (...) content', the document reads. 'It's been divided into several chapters, to show the main topics of concept design within the *Killzone* universe. Each topic highlights the underlying ideas and explanations for why *Killzone* looks the way it does. Besides these guidelines, each chapter consists of existing *Killzone* designs to illustrate the implementation of these guidelines.'

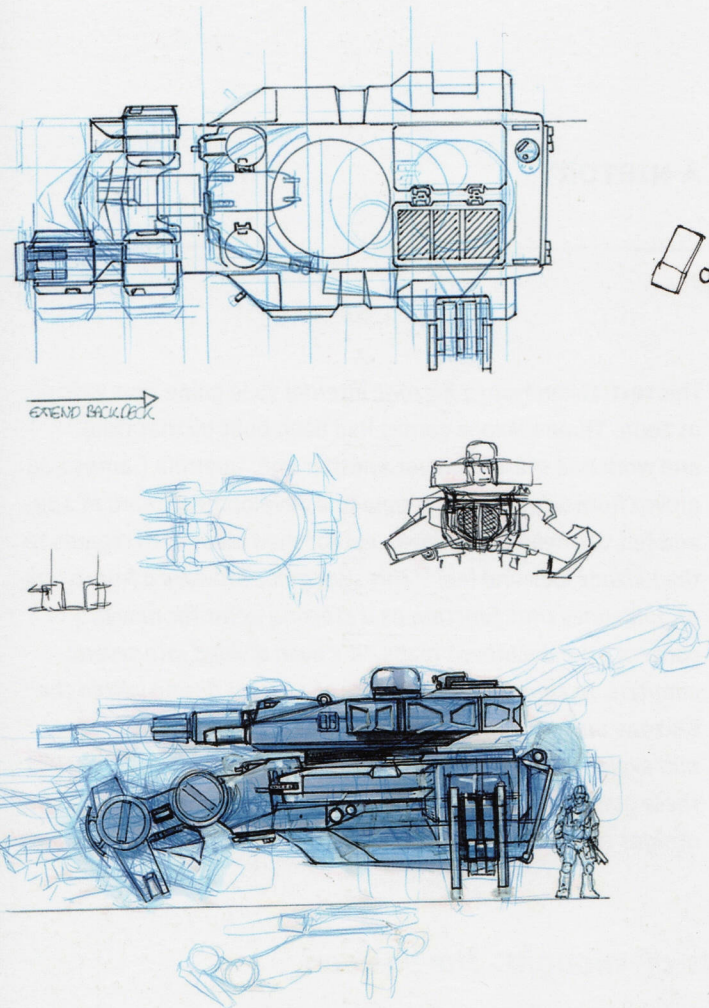
'Helghan design doesn't have schools-of-thought. The book on how to make things was written decades ago. If it works, (there's) no need to change it. The Helghast rarely iterate on design. Helghan design is aimed at functionality, durability and ease-of-production. Safety, aesthetics, and user comfort are almost fully ignored.'



If ever there was a key text to understanding the designs of a blockbuster video game, this is it. Step by step, Guerrilla's visual designers invite the reader to not only look at the images they selected, but to learn to understand why they were selected in the first place, and what they signify. An image of an army vehicle in a blizzard is supported by three comments. One is about creating 'consistent and convincing environments.' 'Environments have a purpose,' the text reads. 'Killzone environments are compelling, even without the gameplay.' 'Reality with a twist' is the second one.

'Combinations of recognizable objects and themes offer new environments and objects to explore.' The third refers to the vehicle we see. 'Mechanical and hydraulic systems show the movement and function of an object.' Nothing is said about the type of vehicle we are looking at, or what it is doing in a snowstorm. Instead of topical descriptions, the writers of the document explain 'the train of thought' followed in developing material for the *Killzone* games, to inform new staff on the Guerrilla way of working.

ALLEY. END

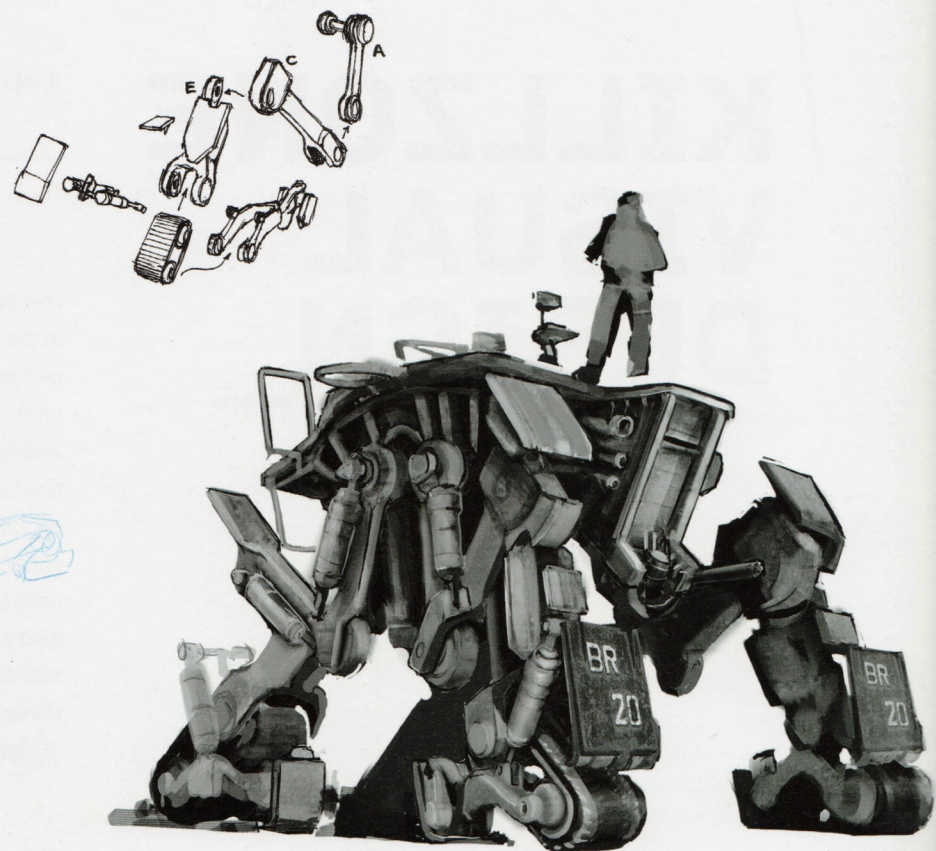


At this point in time, and without them being too aware of it, the design team reached a point where the *Killzone* universe was completely self-explanatory to them. Nine years of intense work on the series (production of the first title commenced in 2000) had resulted in fleshing out every little detail of the sci-fi universe they were building, leaving its designers with an intimate understanding of the games' inner logic. To them, that logic was so convincing, they could actually 'think as Helghan designers' when working on objects for the series' bad guys – happily dropping any reference to 'safety standards, aesthetics, and user comfort' for Helghan weapons or vehicles.

ICE SAW

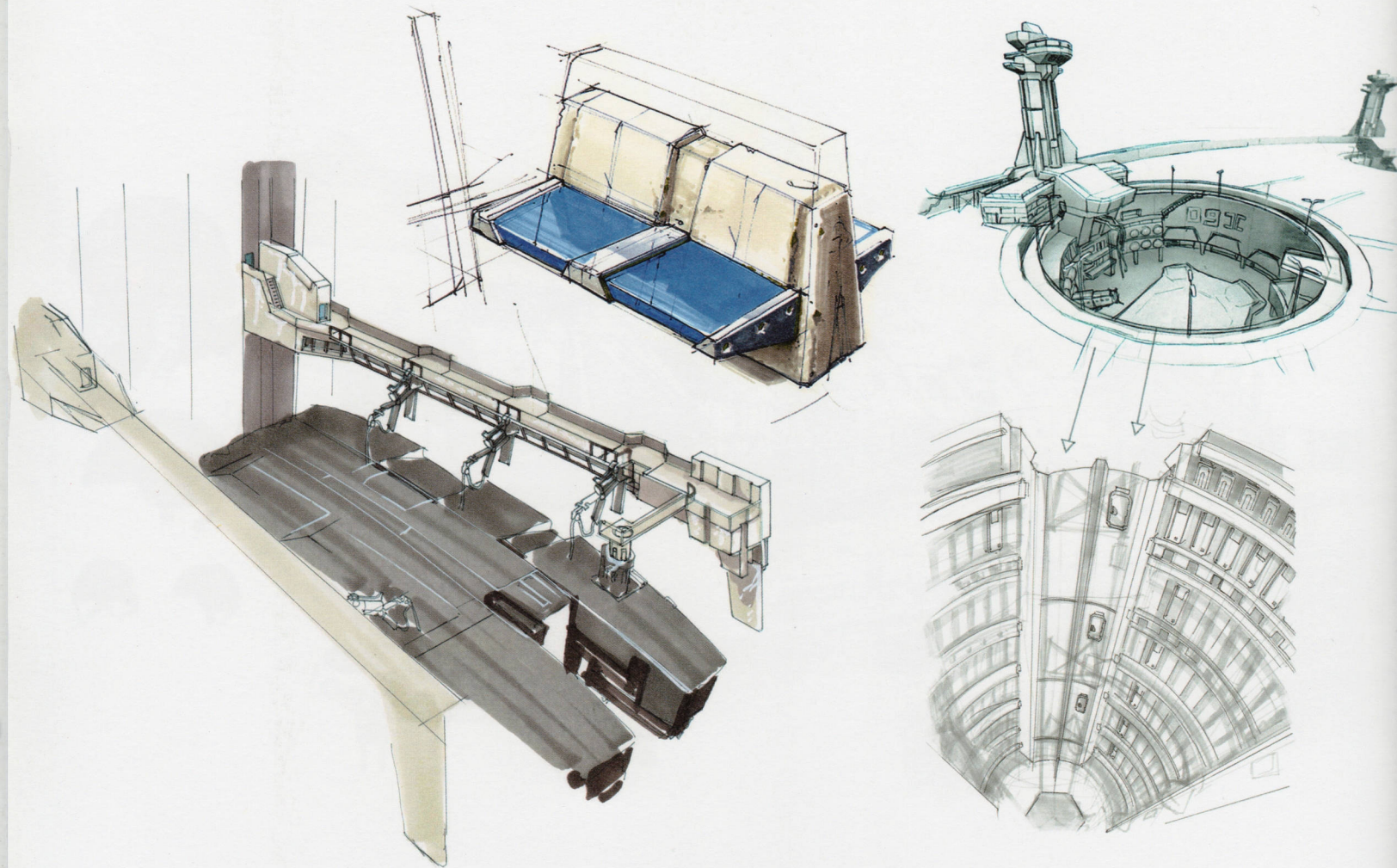
Case in point: while working on *Killzone 3*, one of Guerrilla's design leads brought sketches for a new type of vehicle to a visual design meeting. They had talked about a chase scene earlier – the player would escape an arms factory by way of a frozen lake, using some kind of transport to flee to safety. The design lead morphed these elements into a neat ice sailer: a fast escape vehicle on three skates, fitted with a big triangular sail.

It took all of a minute for the idea to be shot down. One look at the sketches and the other designers knew something was off. 'Helghast don't sail,' one of them said, closing the book



on the topic. There was nothing wrong with the design itself, but as they assessed the vessel, they quickly realized battle-hardened Helghan soldiers would never have the patience to gently pull the halyard, raise the sails, and luff to the weather. For the same reasons, Helghan designers wouldn't bother themselves with ice skating either. Eventually, the lead designer created a new design: a robust vehicle with chainsaw caterpillar tracks that bit into the ice, spitting flakes in the process. Deemed an appropriate Helghast tool, it made its way into the game.

Of course, there had been a time when the *Killzone* universe did not exist, and it is interesting to track *Killzone*'s genesis. The series dates back to 1999, when Guerrilla Games' precursor, Orange Games, was talking to Sony Computer Entertainment Europe about a 'space marines' first-person shooter concept. At the time, Orange Games was one of three small game studios involved in a merger. As 'Lost Boys Games' (a combination of Orange Games, Digital Infinity, and Lost Boys Games/Formula), it would be the biggest game company in the Netherlands, arguably holding the best game development talent in the country. The company produced a wide range of very different games, for different platforms and publishers. It may sound odd to *Killzone* fans, but their beloved shooter studio once was happily living off titles like *Tiny Toon Adventures: Dizzy's Candy Quest* (2001), *Rhino Rumble* (2002), and *Black Belt Challenge* (2002).



INDUSTRIAL DESIGN

Compared to the competition in the United States, Great Britain, and Japan, Lost Boys Games and its staff of thirty-odd people was hardly a blip on anyone's radar. At the time, the Netherlands was not exactly known for its game studios, although a lot was happening within the industry. The country fared much better in other creative industries, most notably those of industrial design, graphic design, and architecture. These were the days of 'Dutch design': clean, minimalistic, and functional design thinking, whether it concerned a book, a chair, or an entire building. Part of this was marketing, of course, and design pundits questioned how unique this 'Dutch design' thing really was. (The trend would be followed by a 'Danish design' trend, touted for the exact same features, so they were probably right.)

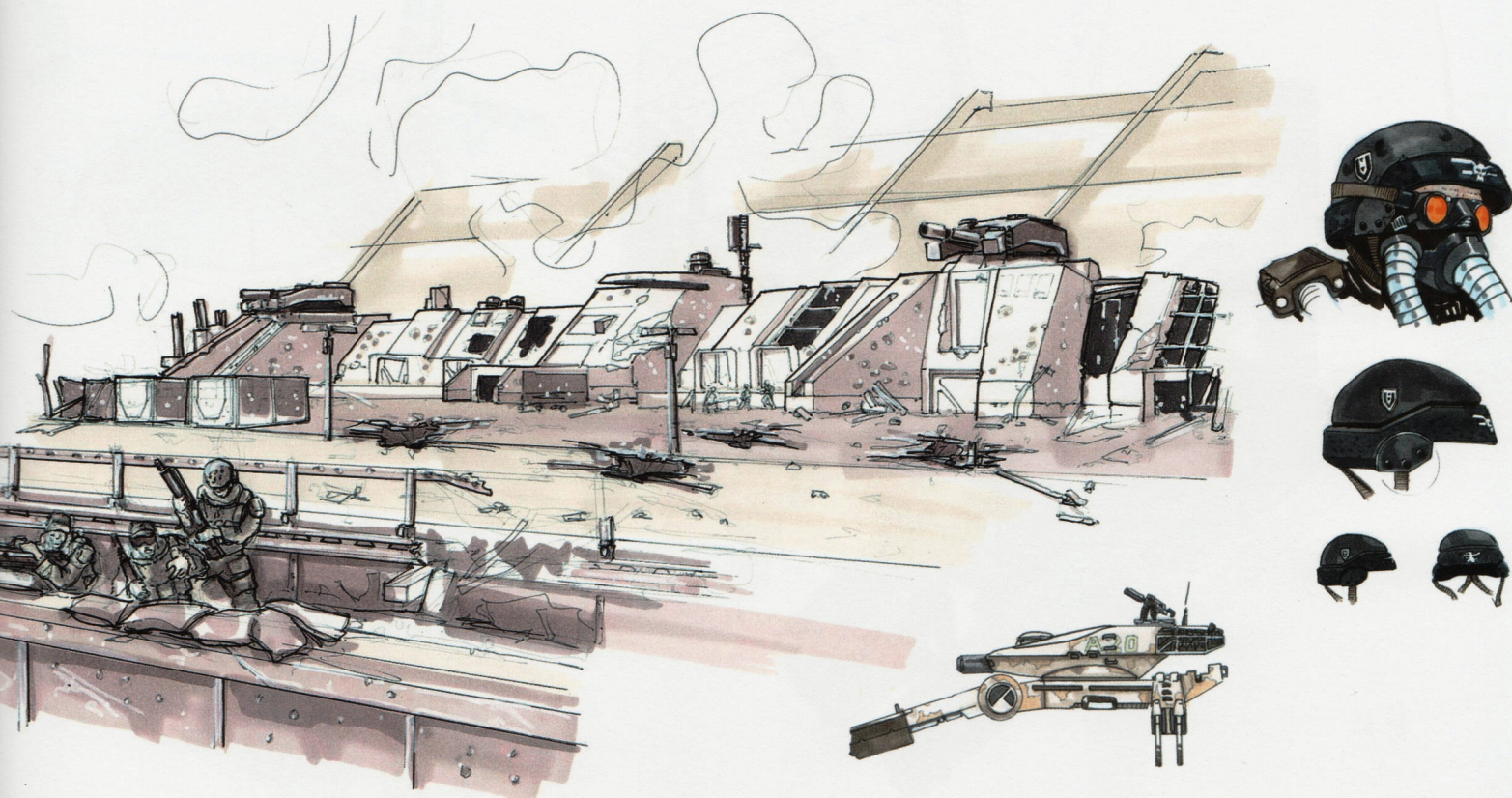
Regardless of what trend watchers wrote about it, several great design academies in the Netherlands expressed their support for the idea behind Dutch design, including Industrial Design Studies at Delft University and the Design Academy in Eindhoven. As a matter of fact, almost all of Lost Boys Games' designers graduated in industrial design – perhaps this is where Guerrilla's idiosyncratic design philosophy originated. When work on the 'space marines' project commenced, there were no 'artists' around to create the necessary concept art, like there were in other studios. Instead, the young designers who took up the work simply designed in-game vehicles and

buildings the way designers would: from the inside out, and through architectural design. Their way of working went unopposed: the Dutch education system didn't offer game art programs at the time, and Lost Boys Games had almost no foreign-educated staff. In other words, there just wasn't anyone around to tell them they ought to do things differently.

KIN

At the time, Lost Boys Games was a long way from creating *Killzone*. Early ideas involved something along the lines of the *Alien* movies, which featured colonial space marines in a battle with nightmarish creatures. However, the creatures were soon dropped, and the first concepts (pitched to Sony in rough movie clips and demos so unplayable, you had to learn to navigate them by heart) focused on a battle between colonial marines on different sides. *Blade Runner* was brought up as an example of future cloning-gone-wrong. What if mankind and their clones split up into warring factions, and the clones were exiled on a hostile planet in some faraway solar system? What if they came back with a vengeance? And what if the clones showed all kinds of physical deformities from living too far away from the Sun for too long? Wouldn't that make for an interesting fight with a scary but strangely familiar adversary?

This early concept revolved around the element of kinship



between the human factions: the war the player would experience would be packed with the kind of drama associated with a fight between Cain and Abel. In this scenario, the need for a cloning element quickly vaporized: it would make perfect (if not Biblical) sense if mankind just fought itself, without having to explain who cloned whom and why. At this stage, someone hit on the word 'Kin' as a title candidate. That struck a chord with the development team: to this day, all *Killzone* games run from an execute file named 'kin.exe'. The name was mysterious and short, and referred to the kinship that lay at the heart of the rivalry. It was also conveniently different from generic game titles – no 'Chuck Norris shooter destruction part two,' as a staff member quipped at the time. However, the name would not last. Sony's marketing department worried that an unknown first person shooter from an unknown Dutch developer would not sell on this title. Naming it *Killzone* – a term borrowed from the American military – would guarantee consumers understood what they were buying.

WORLD WAR II

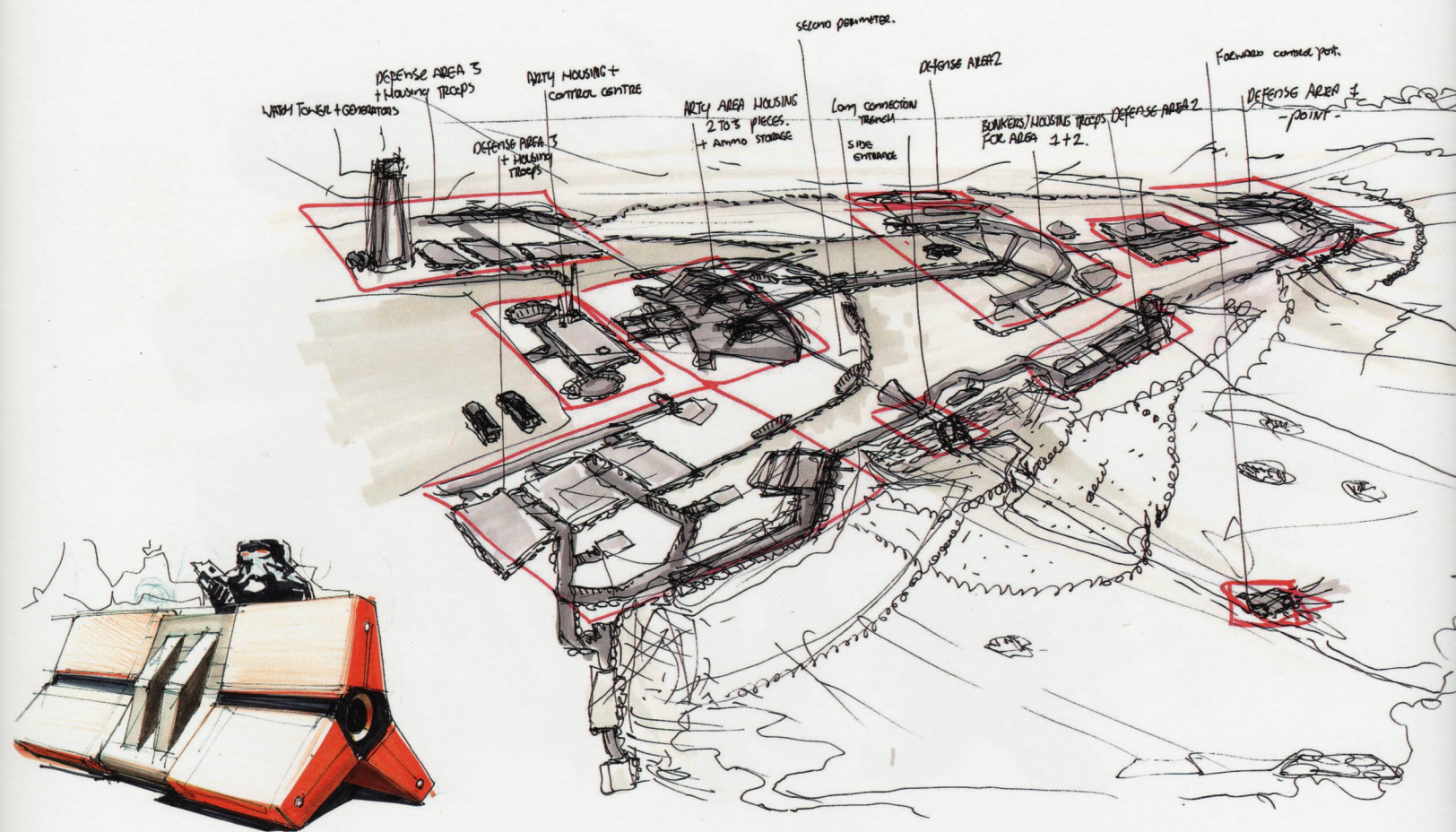
The concept got a major boost when discussions led to a 'World War II in space' theme. What would happen if the big events from that war played out against a backdrop of sci-fi technology? All Dutch children grow up hearing stories about 'the war' – especially those born in the 1970s, like key members of Guerrilla's visual design team. Throughout their formative

years, the dominant Dutch narrative of heroic resistance against the Nazi overlord slowly – and painfully – gave way to a more realistic assessment of the war years. That paradigm shift had great impact on Dutch culture, identity, and morality. Wouldn't it make for interesting content to revisit that war? To combine its heady historic brew of ideology, race, territory, pride, and independence with the darkness and tension of *Alien*, and, in doing so, create a new and original science fiction narrative?

SPACE NAZIS

These ideas gelled as designers started work on 'the enemy.' They researched various aspects of totalitarian states, their military and societal structuring, as well as their geopolitical outlook. But when pens were put to paper (literally, as digital conceiving wasn't around until much later), it was mostly German uniforms and stormtrooper helmets with sharp SS-like markings that appeared. Early cannon studies share a silhouette with German flak guns; science fiction dropships and hovercraft showed distinct Nazi-era camouflage patterns. Looking at the earliest game concepts, you can't help but notice how much the designers were at home with the visual style of the 1940s Wehrmacht, the foe that had crushed their country half a century ago.

And then, over the course of a creative process to find the



right type of foe for their game, someone drew a pair of World War I-era goggles on a soldier's face, over a World War II-era Russian oxygen mask. No one gave it a second glance, until early game testing got under way and test players complained how enemy soldiers were hardly visible against some of the backdrops in the game. To overcome this issue, someone made the goggles a bright reddish orange, and invented the series' iconic bad guy. The 'Helghast' soldier – informally dubbed the 'space Nazi' – was born. The word 'Helghast' was found while playing around with the Dutch-Germanic word 'gast', which means 'guy' – Helghast (plural) are guys from hell, basically. Their counterparts are 'ISA soldiers' fighting for a NATO-like 'Interplanetary Strategic Alliance.' They roughly resemble the colonial marines from the earliest concepts, and are clearly styled after WWII Allied forces.

Ideas about ISA and the Helghan people and society were combined into a strong, all-encompassing design. For example, the different ISA and Helghan weapons were grafted on ideas about the respective ideologies on both sides. The ISA world was seen as a future version of today's 'free world,' with its liberal market economy and 'open' societies that provide easy access to high-end technology and innovation. The ISA military, it followed, works with private contractors that rely on innovations to outsmart commercial competition. In contrast, the Helghan world was a futuristic version of the oppressive regimes of Stalin's USSR and Mao's China, as well

as Hitler's Germany. Helghan troops thus carry guns from state-owned companies that pour out as much hardware as they can, without much attention to detail or user safety. Soldiers are disposable, guns are practical: whereas ISA machine guns tote high-tech electronic scopes, some of the Helghan weapons have a bare metal, V-shaped wedge welded to their barrels as sight aim, with a splash of red paint on them to improve visibility.

VEKTA

The game world ideas and designs would stand for over fifteen years, and would be instrumental in shaping the six *Killzone* titles to hit the market. Of course, a lot of things happened along the way, impacting the way the vision behind the design could be expressed in each of the games. Technology played a big part, for instance. The first *Killzone* was launched for Sony's PlayStation 2 console. Fighting took place on planet Vekta and its similarly named capital city, but players did not get to see much of the place. Hardware and software limitations stood in the way of showing the player a believable three-dimensional city, and so the bulk of the fighting took place in narrow space ship corridors, confined city spaces, small jungle trails, and the Vekta sewer system. Graphic quality was affected as well: the game's color palette of dark grays, greens, and browns – a big part of the *Killzone* identity – was partly due to what the PS2 could handle graphically. Also, the

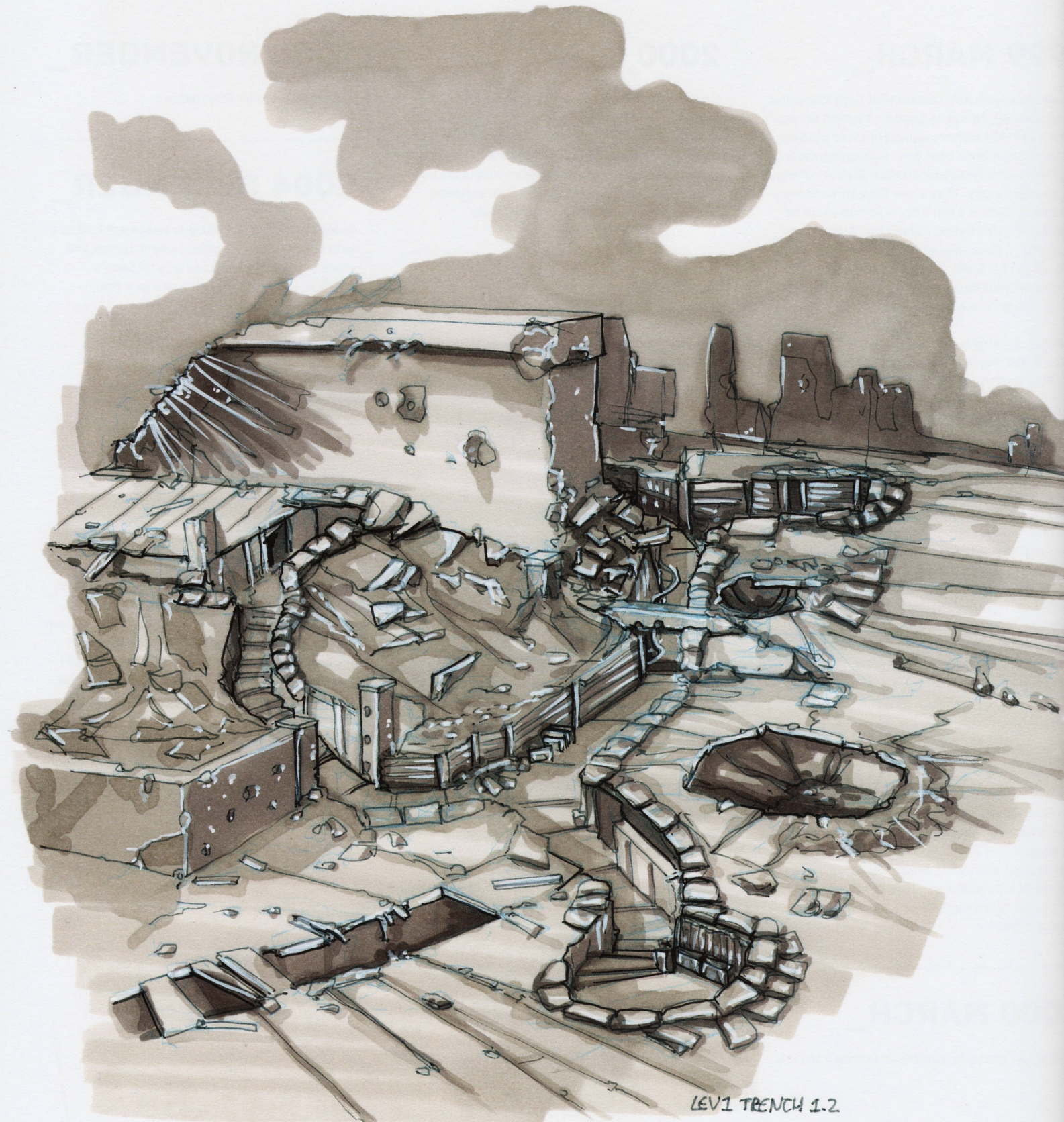
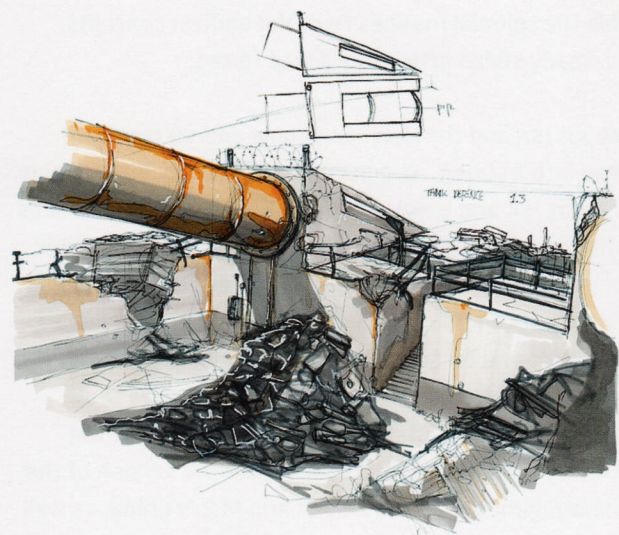


existence of 'hover tanks' in the first *Killzone* title is a direct consequence of tech limitations: the coders couldn't get the animations of caterpillar tracks right.

All in all, these restrictions were lifted when Guerrilla got to work on games for the PlayStation 3 and 4. *Killzone Shadow Fall* for PlayStation 4, the last title to date, is truly a thing of beauty. The game once again takes the player to the city of Vekta, but the visual design team now had the horsepower at their disposal to present a populated, living and breathing city. Compare the Vekta of *Shadow Fall* to the Vekta of the first *Killzone*, and you will find that everything has changed: gone are the grayish overtones of early designs, to be replaced by vivid colors, proving Vekta to be a modern and light place. The stationary objects, empty streets, and closed architecture of the old Vekta gave way to passenger trains swooshing by, buildings that appear to be populated, and streets filled with non-playable characters that have animated discussions when you walk among them.

Everything has changed, and yet nothing has. *Killzone's* basic design ideas have remained surprisingly similar over the years. The delivery drones hovering over the player in *Killzone Shadow Fall* are a new feature, but they still show their 'mechanical and hydraulic systems' to explain 'the movement and function of the object.' A complex space container system players

encounter is 'a combination of recognizable objects and themes' that offers 'a new environment and objects to explore.' It's an environment that obviously 'has a purpose' and is in line with Guerrilla Games' bigger design philosophy: to engage the player over and over again, and to 'be compelling, even without the gameplay.'



TIMELINE_

1999 MARCH_

Two visitors from Amsterdam visit Sony Computer Entertainment Europe in London, to pitch several game ideas. The visitors represent three studios – at this point in time, Lost Boys Games/Formula is merging with two other studios: Digital Infinity, and Orange Games. They show Sony three demos, and one of them is a hit: a first- person shooter/ roleplaying game hybrid called *Core*. Also shown is a digitized three-dimensional oil rig that Orange Games built for Shell. Both the oil rig and Core are evidence to the powerful PC graphics engine Orange Games has built.

Although nothing is decided there and then, Sony does ask the Dutch whether their engine would run on a PlayStation 2 console.

1999 EARLY FALL_

Sony and the Dutch studios discuss a first-person shooter around a space war theme. Sony had been in negotiations with Fox Interactive, owners of the *Alien* movie franchise, to broker a deal around a shooter game with a ‘colonial marines vs. aliens’ theme, but those negotiations were abandoned. Could Lost Boys Games sketch out some ideas on a ‘space marines first-person shooter,’ combine them with their graphics engine for *Core*, and present them to Sony at a later stage?

1999 DECEMBER_

Lost Boys Games presents a three-minute concept video of futuristic marines fighting off-screen enemies. The demo is shot entirely in what by now is called the ‘Core Engine’, and shows enough technical quality to land the Dutch studio a small pre-production contract for ‘a squad based first person shooter game, codename *Marines*.’

2000 MARCH_

PlayStation 2 console launched in Europe & the U.S.

2000_

First ‘playable’ marines demo is presented in London – ‘playable’ meaning presenters learned by heart where to trod in order to not jam the software. Backstory develops: the aliens are dropped and the fight is now between two human races. The team adopts the name ‘*Kin*’ for the new game, hinting at a fight between brothers. New production contracts ensue.

2000_

Lost Boys Games releases several different games on all kinds of platforms, while working on *Killzone*. The studio vows to focus more on shooter games, but is hesitant to rely on the Sony deal alone. Development starts on a second shooter game called *Shellshock: Nam ‘67*, a third-person shooter with a Vietnam war theme.

2002_

Internal discussions on the game title. *Killzone* replaces *Kin*.

2003_

The merger is completed: Lost Boys Games is rebranded Guerrilla Games and moved to media company Media Republic.

2004 MAY_

Killzone and *Shellshock* are announced at Sony’s Electronic Entertainment Expo presentation for Q4 2004. Development team for *Killzone* is about 60 people.

2004 SEPTEMBER_

Shellshock: Nam ‘67 released on several platforms.

2004 NOVEMBER_

Killzone released for PlayStation 2.

2004 DECEMBER_

Guerrilla signs an ‘exclusive development contract’ with Sony Computer Entertainment Europe and starts working on a *Killzone* title for Sony’s PlayStation Portable, as well as a on a new console title.

2004 / 2005_

PlayStation Portable launched.

2005 MAY_

Sony unveils plans for its PlayStation 3 console at the Electronic Entertainment Expo, and shows a range of upcoming games in a series of videos. Guerrilla has prepared a ‘vision’ of a future *Killzone* for PS3 in a shiny video, which unfortunately is presented on stage as ‘in-game footage.’ It isn’t, and Sony and Guerrilla receive a lot of media flak. However, it does raise the bar for *Killzone 2*.

Development had started on a new PlayStation 2 title, but the team quickly switched to developing for PlayStation 3 in order to satisfy high expectations.

2005 DECEMBER_

Sony buys Guerrilla Games from Media Republic.

2006_

Development team for *Killzone 2* is ramped up to 120 people during peaks.

2006 FALL_

Killzone: Liberation released for PlayStation Portable.

2006 NOVEMBER_

PlayStation 3 launched.

2009_

Killzone 2 released for PlayStation 3.

2010 JULY_

Guerrilla announces it works on ‘a new IP’ while developing *Killzone 3*.

Development team for *Killzone* is now 130 people.

2011_

Killzone 3 released for PlayStation 3. Supports 3D gaming and Move Controllers.

Sony studio SCE Cambridge starts development on *Killzone: Mercenary* for PlayStation Vita, Sony’s new handheld computer.

2011 / 2012_

PlayStation Vita launched.

2012 JANUARY_

SCE Cambridge becomes part of Guerrilla Games.

2012 FEBRUARY_

Killzone 3 Multiplayer is launched: a standalone version of the multiplayer component of *KZ3*, including all bonus content.

2012 AUGUST_

Killzone: Mercenary announced.

2012 OCTOBER_

‘*Killzone trilogy*’ released for PlayStation 3. The original *Killzone*, a PS2 title, is re-worked to a full HD version. SCE Cambridge is rebranded Guerrilla Cambridge.

2013_

Guerrilla in Amsterdam now has a development team of 180 people.

2013 FEBRUARY_

PlayStation 4 console announced, as well as *Killzone Shadow Fall*: one of a handful of launch titles by Guerrilla Games or third-party studios. Revenging itself for the infamous *Killzone 2* trailer, Guerrilla Games is the first studio to show live gameplay from its next-gen title.

2013 SEPTEMBER_

Killzone: Mercenary released for PlayStation Vita.

2013 NOVEMBER_

PlayStation 4 launched. *Killzone Shadow Fall* released as launch title for PlayStation 4.





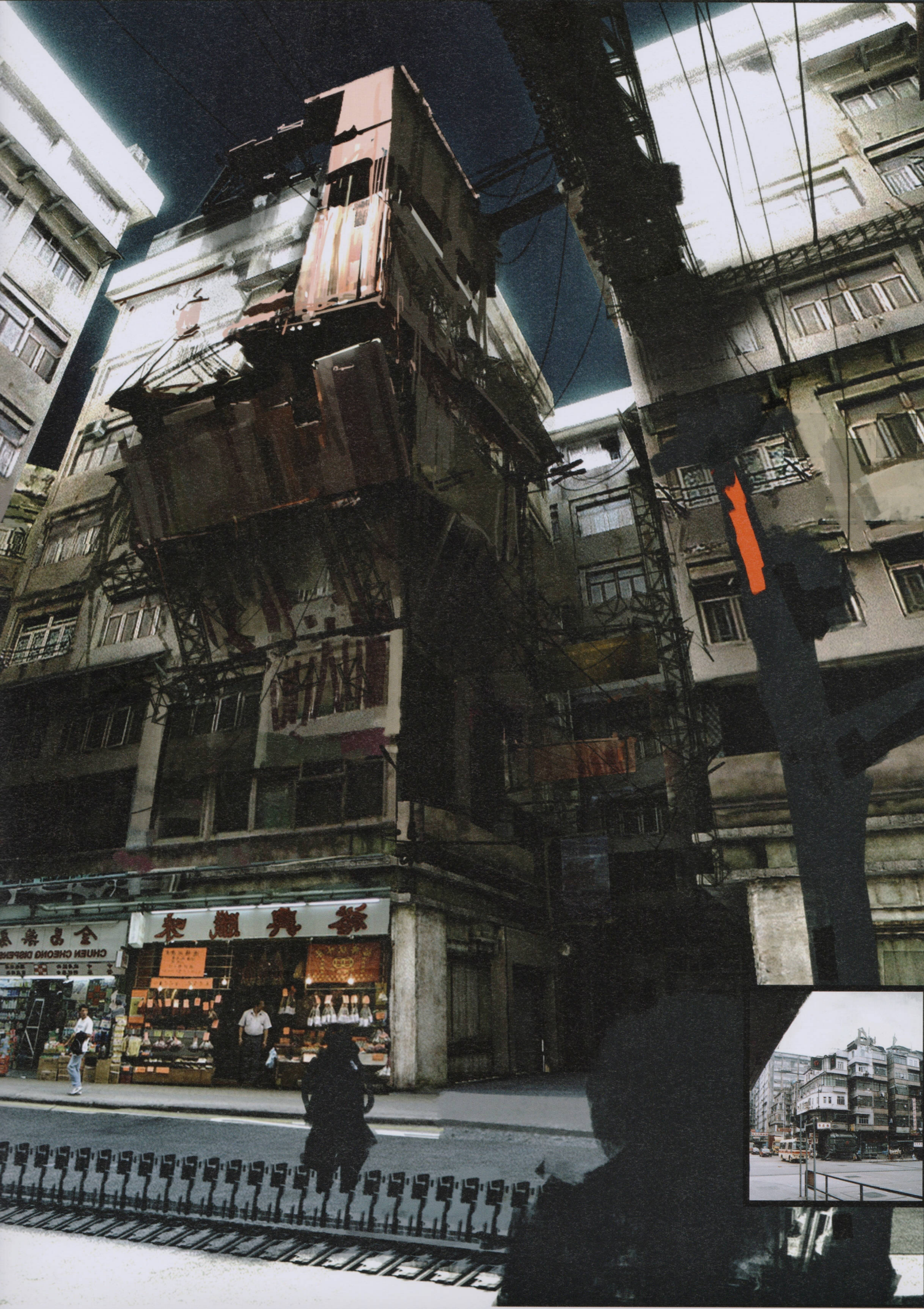


HELGHAN
CAPITAL OF
PLANET HELGHAN,
HOME TO THE HELGHAN
ADMINISTRATION

WELCOME TO HELGHAN_

The scenarios for *Killzone 2* and *3* envisioned the invasion of Helghan, home planet to the Helghast. A planet so 'hostile and dangerously toxic' that it had altered the physiognomy of its human inhabitants. But what would life on this inhospitable planet be like? Players would experience street-by-street city combat, but that meant figuring out what a 'Helghan city street' looked like in the first place.

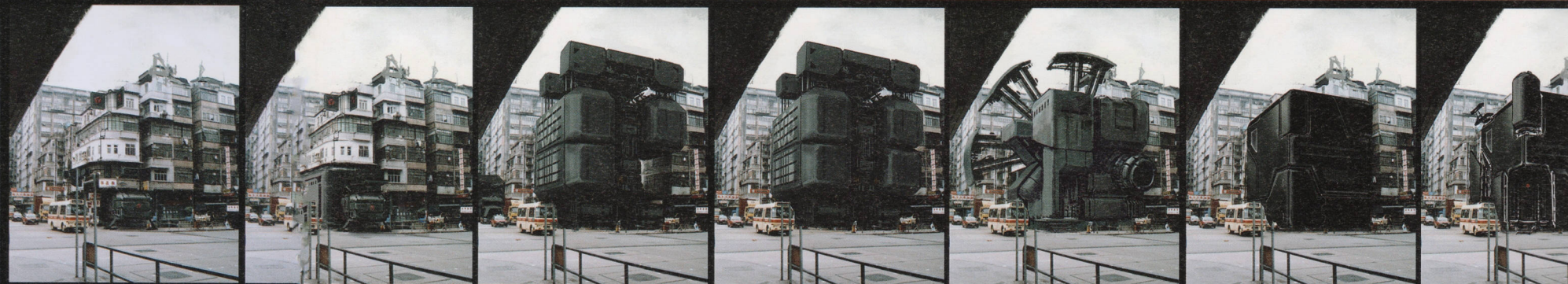
Eventually, designers hit on a combination of architectural styles that was in line with their ideas on the Helghast and on Helghan society. Wastelands and dark jungles make up most of the planet's surface. Civilians live in crowded shanty towns and rundown formulaic dorms, in cities dominated by the looming totalitarian architecture of the state's military and social elite. The streets are fitted with a futuristic system of dark shields overhead in order to protect people from environmental hazards, thereby enhancing both the hostile character of the planet and the image of an oppressive state.

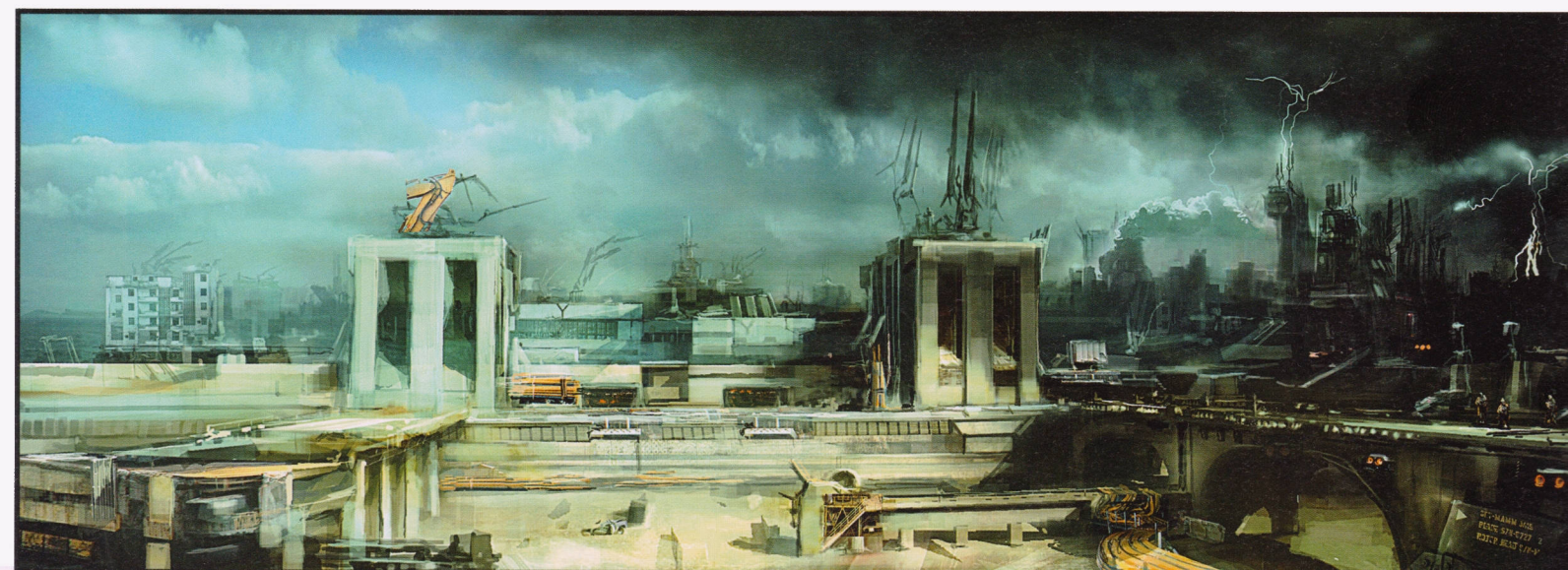
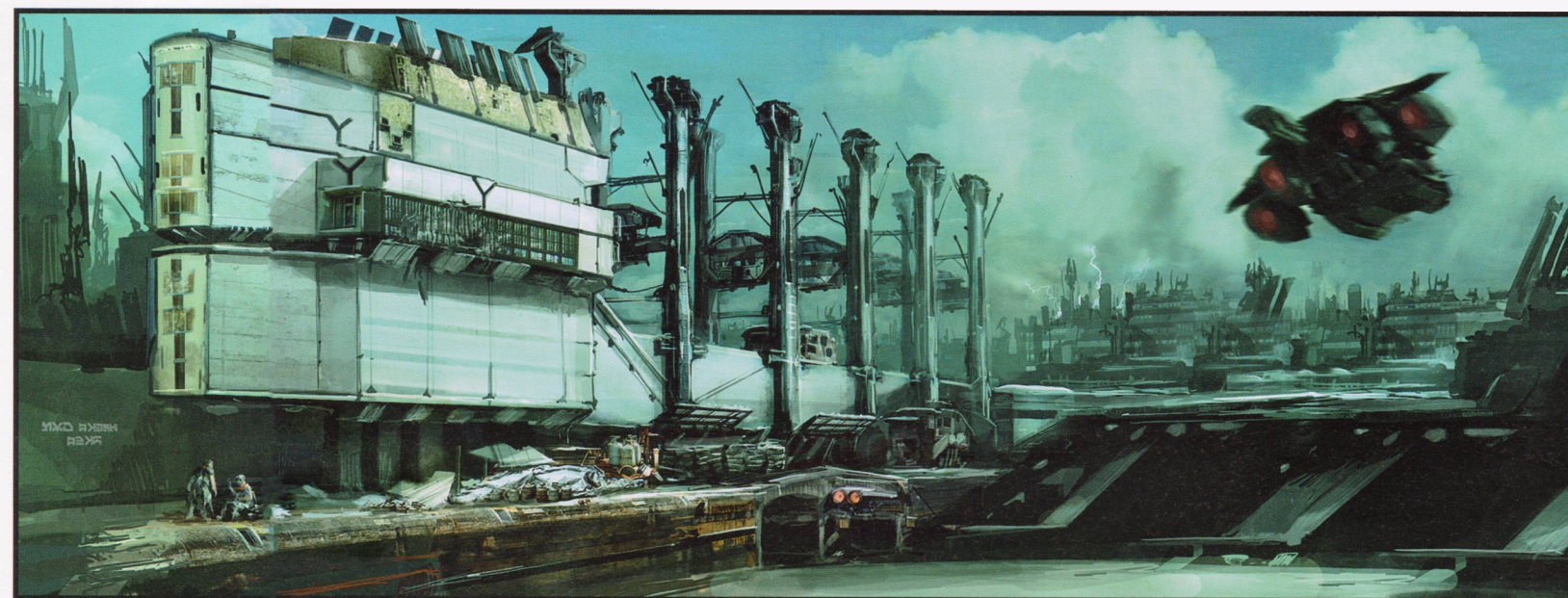
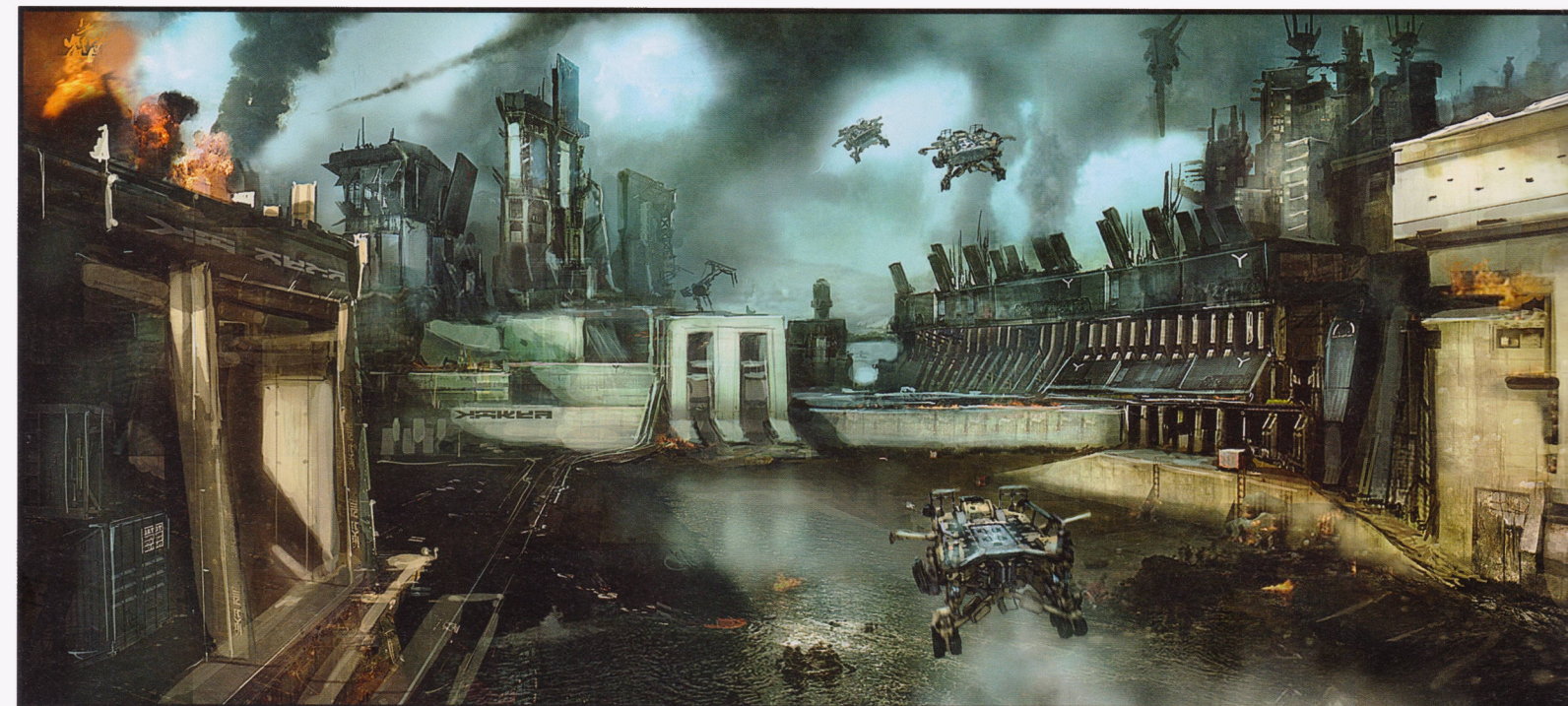
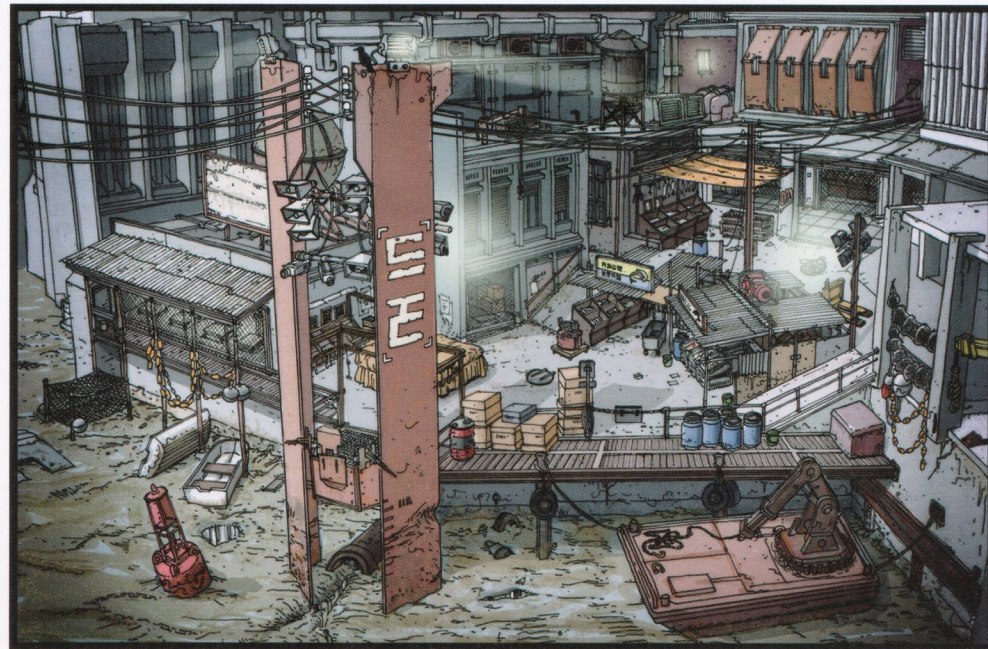


'From the start, we focussed on designing a society where the state is not looking after its population and people are trying to make something of their lives, for better or worse. This lead us to a concept of shantytowns with heavy state control: a combination of Asian street life as encountered in Hong Kong or Macau, and the militarized policing of twentieth-century totalitairian states.'

Initially, we worked from images we shot in Hong Kong, but made sure to quickly 'de-Hong Kong' the work we came up with: we needed a feel for how people build stuff in an un-planned fashion, not a blueprint for a Helghan city.'

Roland IJzermans | Lead Visual Designer



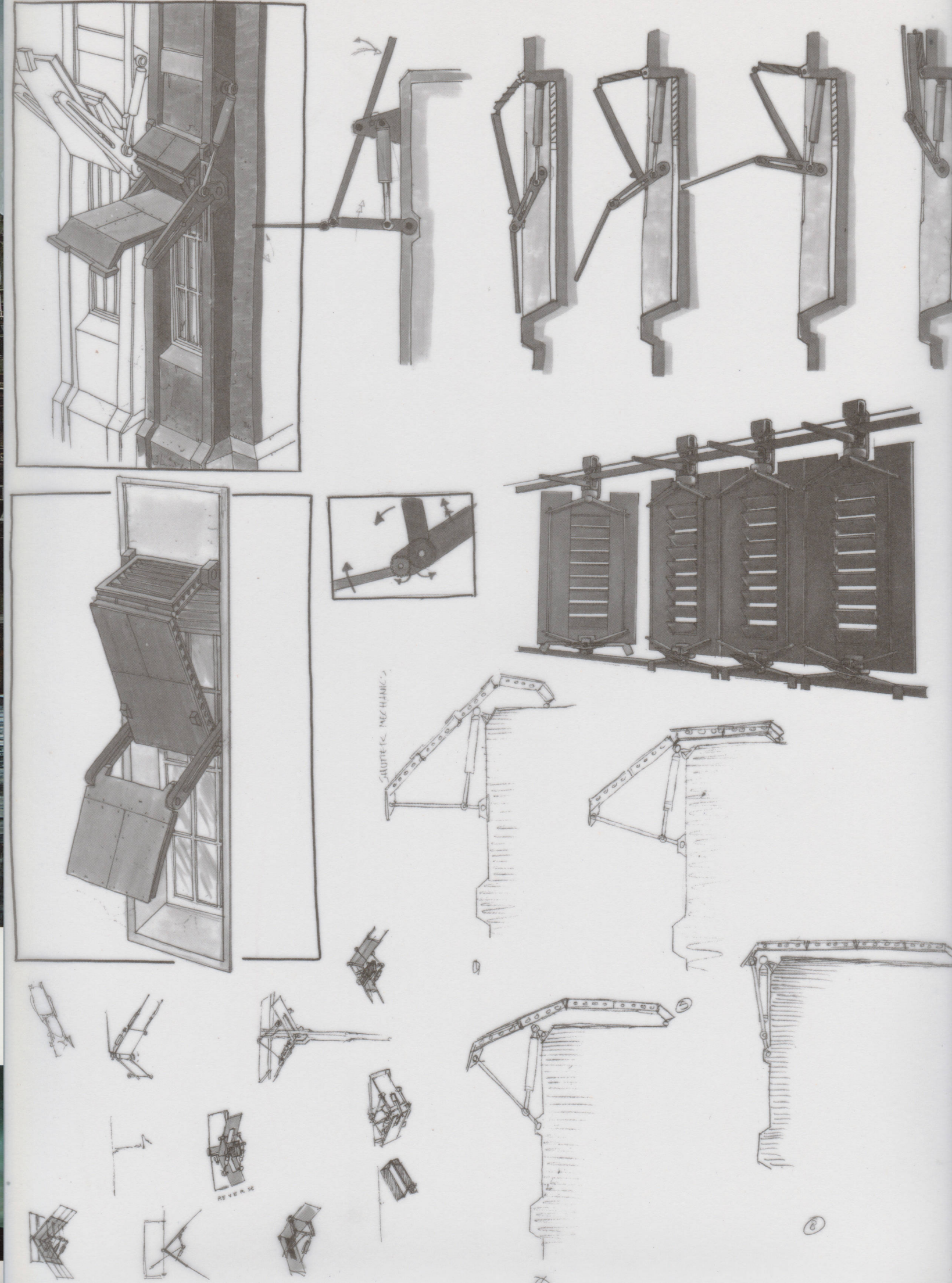


HOUSING
CONDITIONS

IMPRESSIVE FACADES
THAT CONCEAL
MASS PRODUCED
AND CHEAP
HOUSING BLOCKS

'Early on, we decided Helghan was suffering from severe electricity storms. Such storms have an impact on life on the planet, so we looked into ways the Helghan would have adapted to this reality. Working on the buildings, we used metal-plated shutters to protect windows; everyone would be inside, sitting out the storm. Next came ideas about what Helghan engineers would do with the conditions: if the energy could be harvested, it would make for a great power source. At some point, I turned the shutters upside down and used them as antennas: thirsty for energy, the city would open up and feed from the storm like a living being. This sat well with our ideas on Helghan engineering, so it stayed. Also, it was economical in production budget, because we had fully designed the shutter components.'

Miguel Angel Martinez | Principal Visual Designer





INDENTS

WALL LINE NOT A
SOLID FACE GOES
IN AND OUT

BEAMS IN FRONT
TO CREATE LAYERING

STICKING OUT ELEMENTS

SHARPER ONES [BIG SHUTTERS & POLES]
SOFTER ONES [FRAMEWORK]
SMALL ONES [LEDGES]

UPPER FLOOR OVERHANG

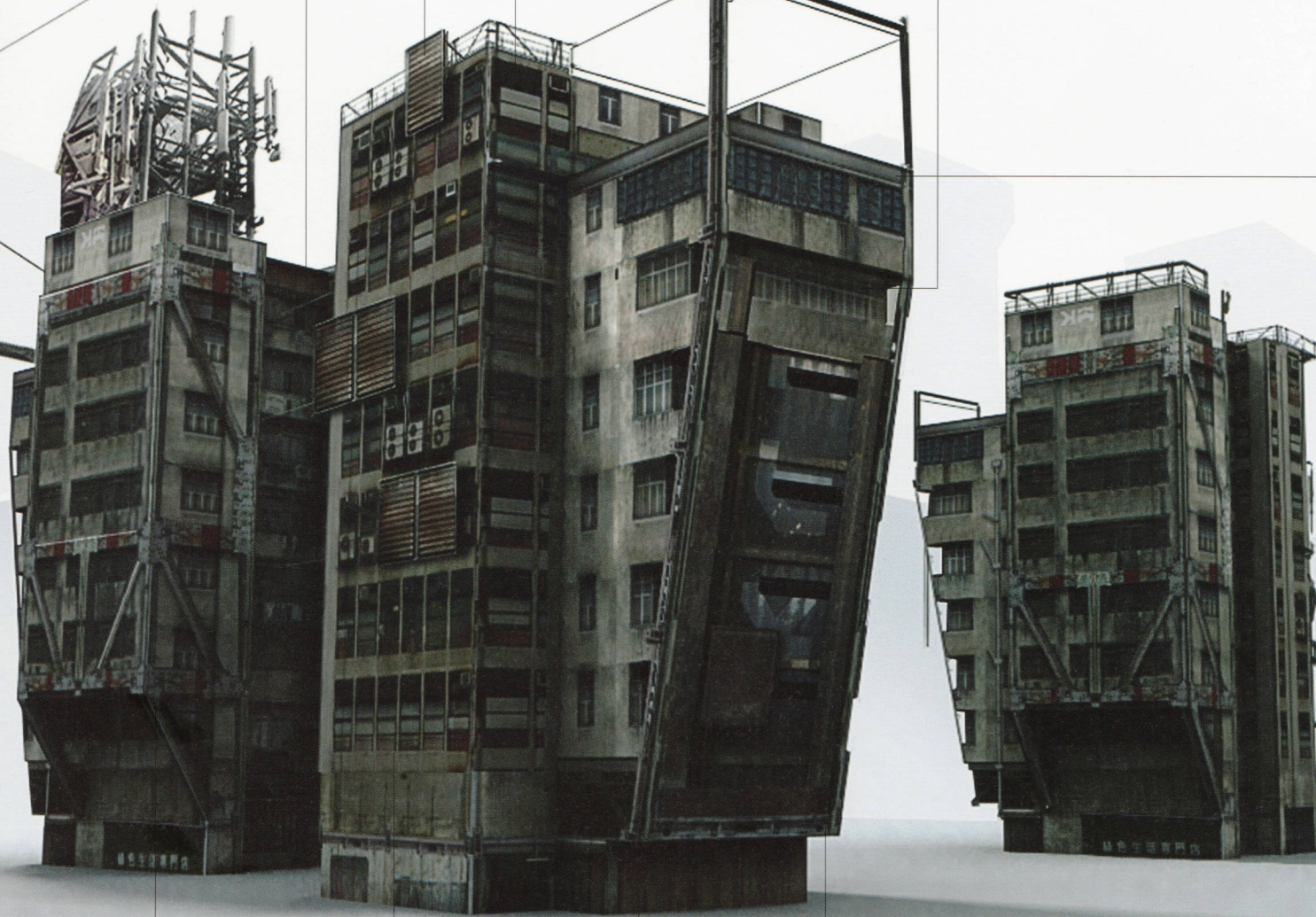
SHANTY

BALCONIES
WALKWAYS
WINDOW COVERS

HOLES

BACKED WITH METAL PANELS

TACKED-ON STRUCTURE ADDED
FLOOR STRUCTURE REVEALED



FLOOR UNDERSIDES

OFTEN SHOW STRUCTURE

SHUTTERS

COVER MOST WINDOWS

LARGE SCULPTURAL ELEMENTS

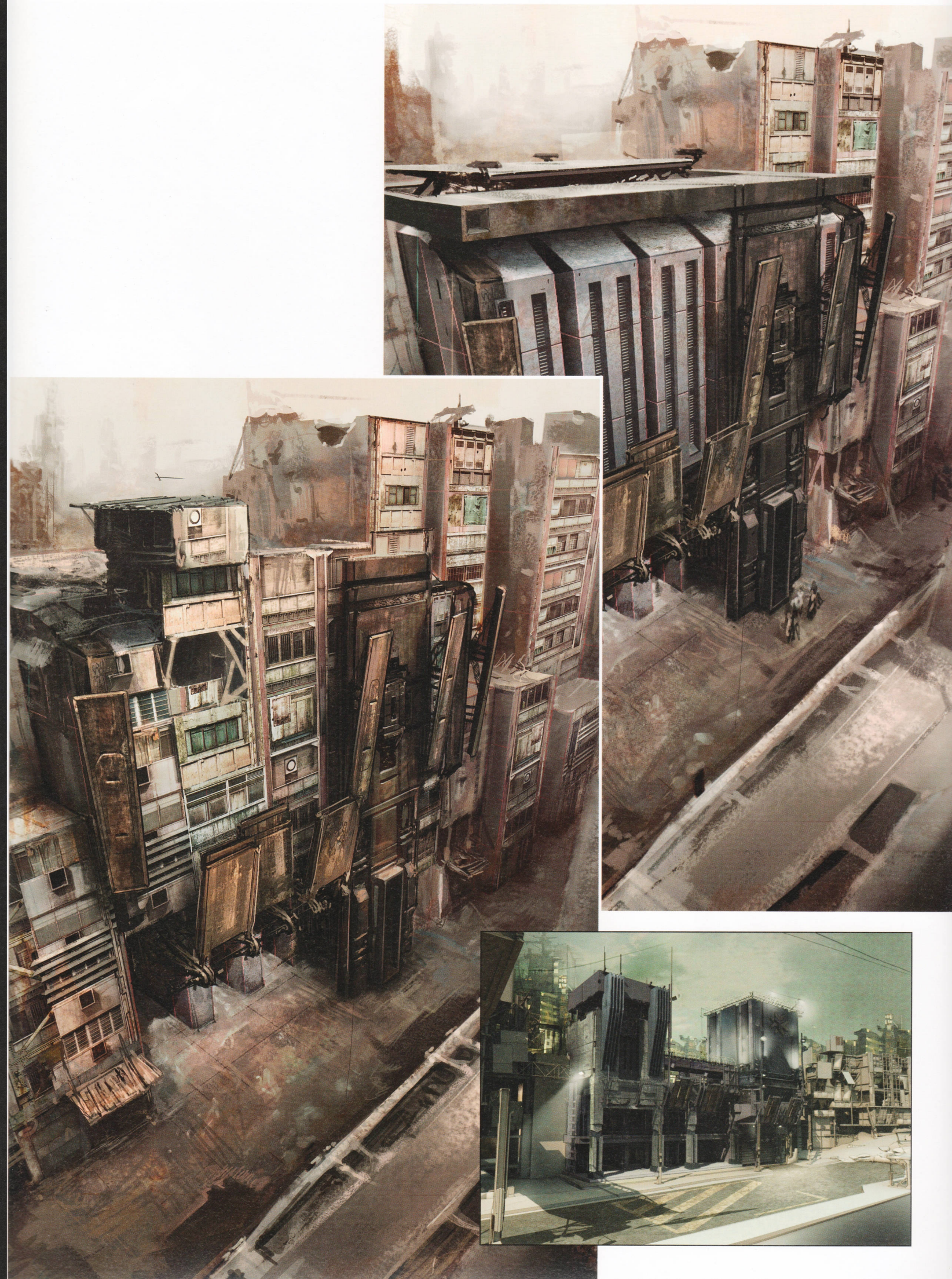
HEAT SINKS... OR LARGE
COLUMN STRUCTURE

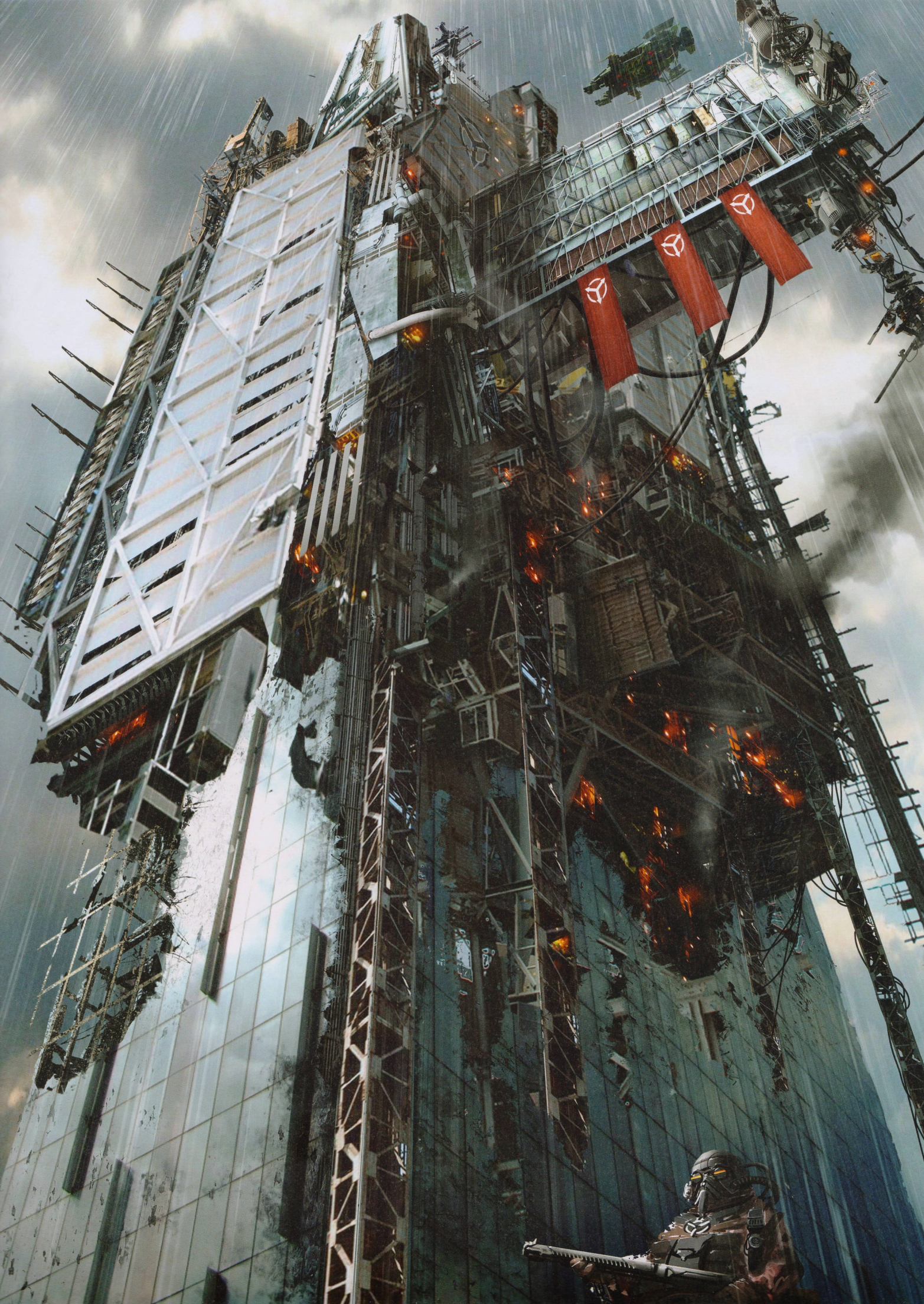
OVERHANGING BOXES

KILLZONE

BY KBG GUIDES VISUAL DESIGN

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HELGHAN ARCHITECTURE

OVERALL MASSIVE AND POWERFUL
NO MAINTENANCE OR PROPER REPAIR
CONTINUOUS CHANGE
NOTHING PROPERLY FINISHED



'Disturbing medical problems are found to be common throughout the Helghan colony - exotic radiation and storms have serious effects on the longevity of the human being. The wearing of masks for those who work outdoors becomes mandatory. Mask-wearing becomes the sign of having a working class profession. Even with masks, Lung Burn (as the settlers call it) becomes the primary cause of death in Helghan over the age of thirty.'

Killzone | Official Timeline



'The Helghast's glowing eyes seem kind of strange from a story point of view. It doesn't seem very camouflage-worthy. But the eyes were only added after the game was in development, and we quickly realized it made the game much easier to play. Other things needed to go after that. At that point, we still had doors that had red lights on them as well, and that needed to go because people started randomly firing at doors.'

Jan-Bart van Beek | Studio Art Director | Talking to 1up.com [2011]

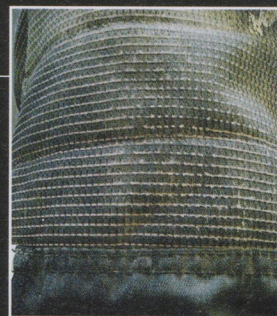




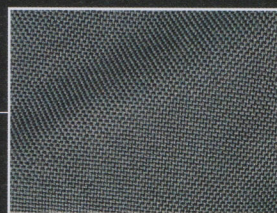
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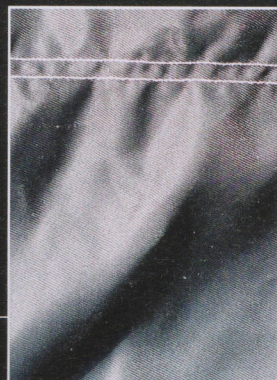
MATERIAL



MATERIAL



REFLECTION



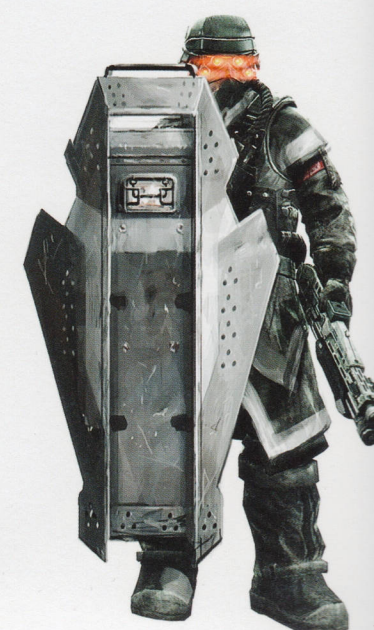
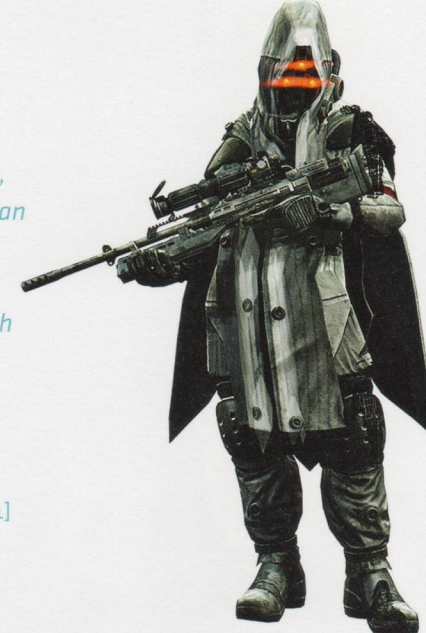
'The Helghast look was purposely developed to mimic the look of the 20th century's quintessential bad guys, the German forces of the first and second world war. The black leather uniforms with highly contrasting white and red elements, it creates a very striking image that is very easily recognized as 'the bad side'.

But we also took inspiration from Russian uniforms, such as the look of the gasmasks themselves. But it's even more pronounced in the Helghast gear, weapons, vehicles and even their architecture. Helghast industrial design is all about mass production... cold steel, grey concrete and the smell of diesel. These elements are also what comes to mind when looking at Russian designs from the Stalin-era. It just screams totalitarianism.'

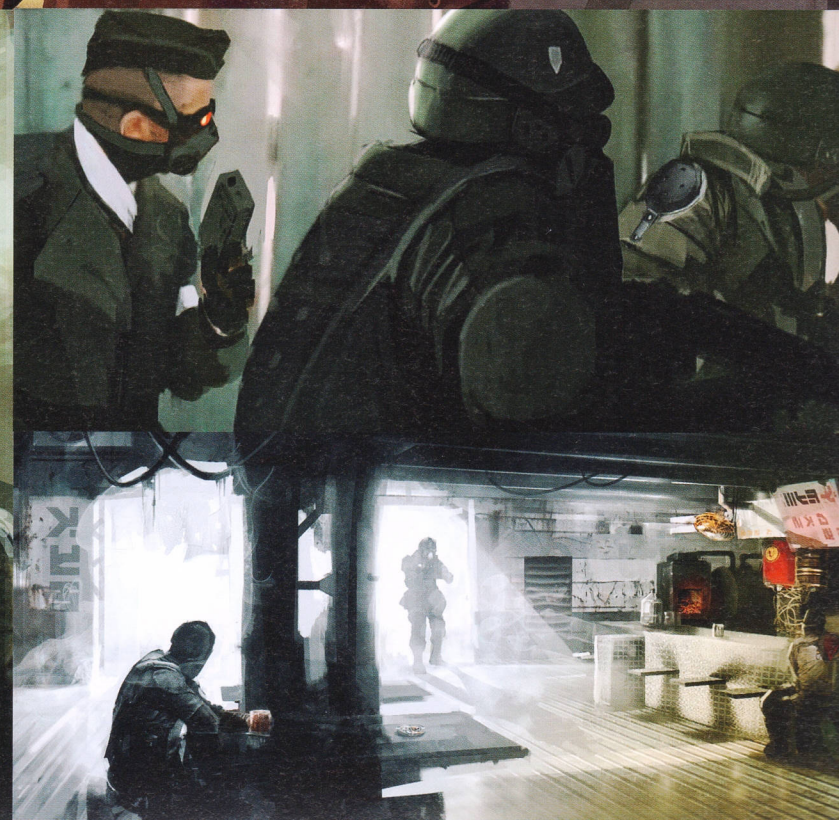
Jan-Bart van Beek | Studio Art Director | Talking to 1up.com [2011]

'When we decided to make the enemies the star of the franchise, we searched for strong motifs and elements used by authoritarian regimes throughout the twentieth century. For example, the dehumanizing effect of the Helghast goggles and masks is evocative of World War I - it brings to mind the intensity of trench warfare, the way soldiers were viewed as utterly expendable. The Helghast do not care for the wellbeing of the individual, only for the greater good.'

Hermen Hulst | Managing Director | Talking to 1up.com [2011]





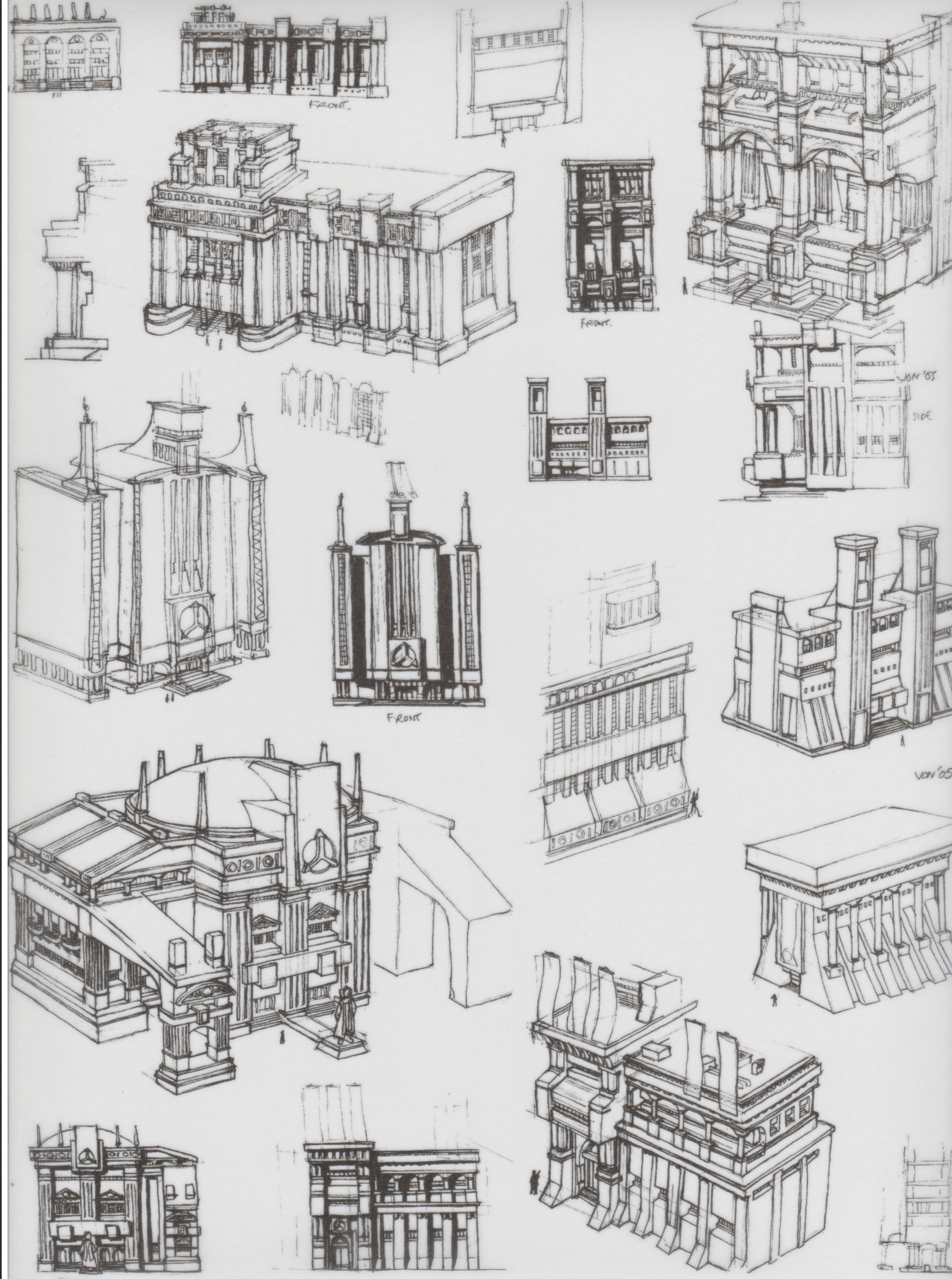




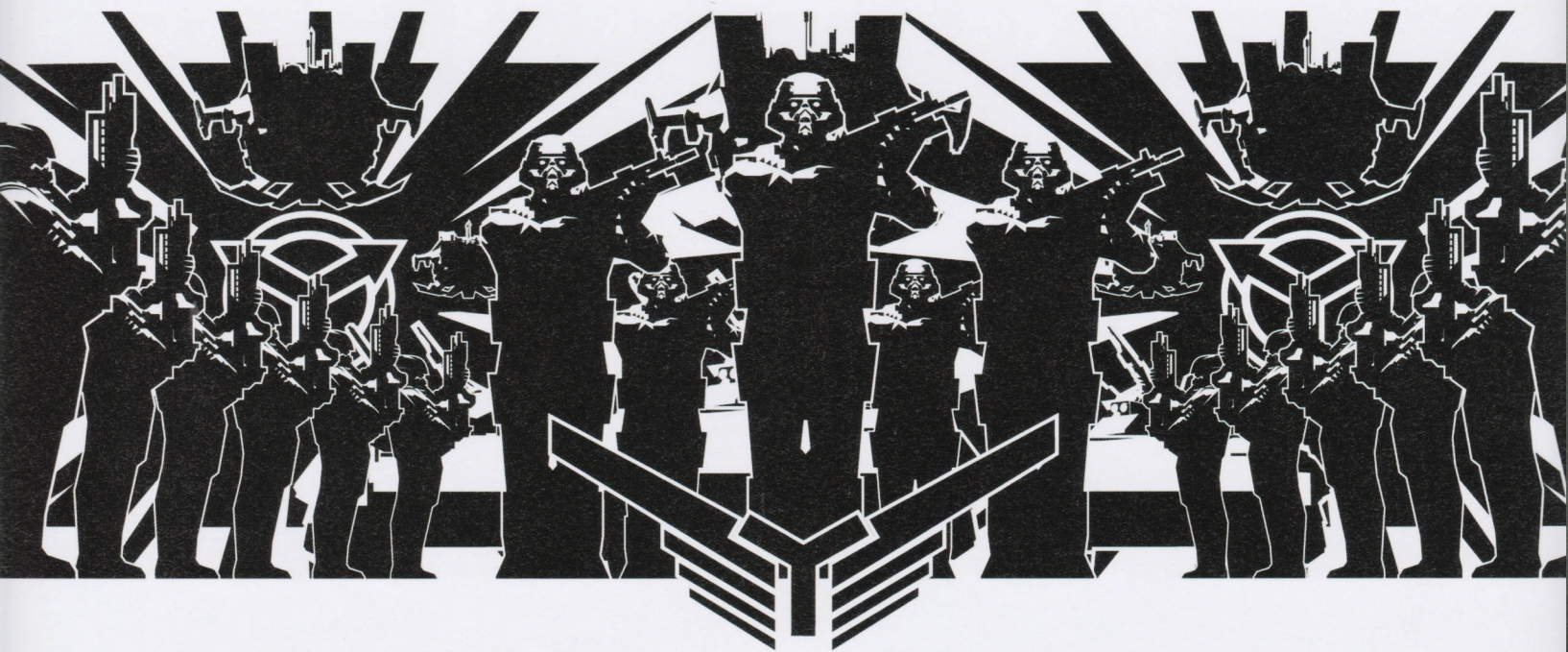
KILLZONE

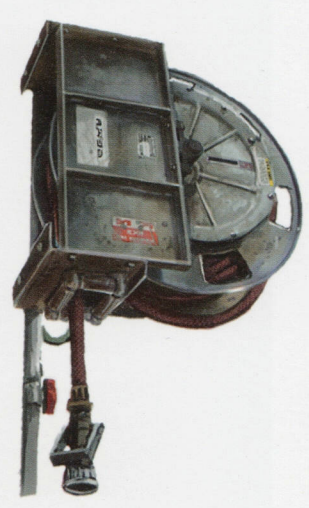
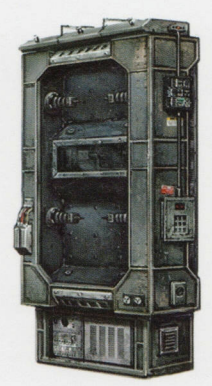
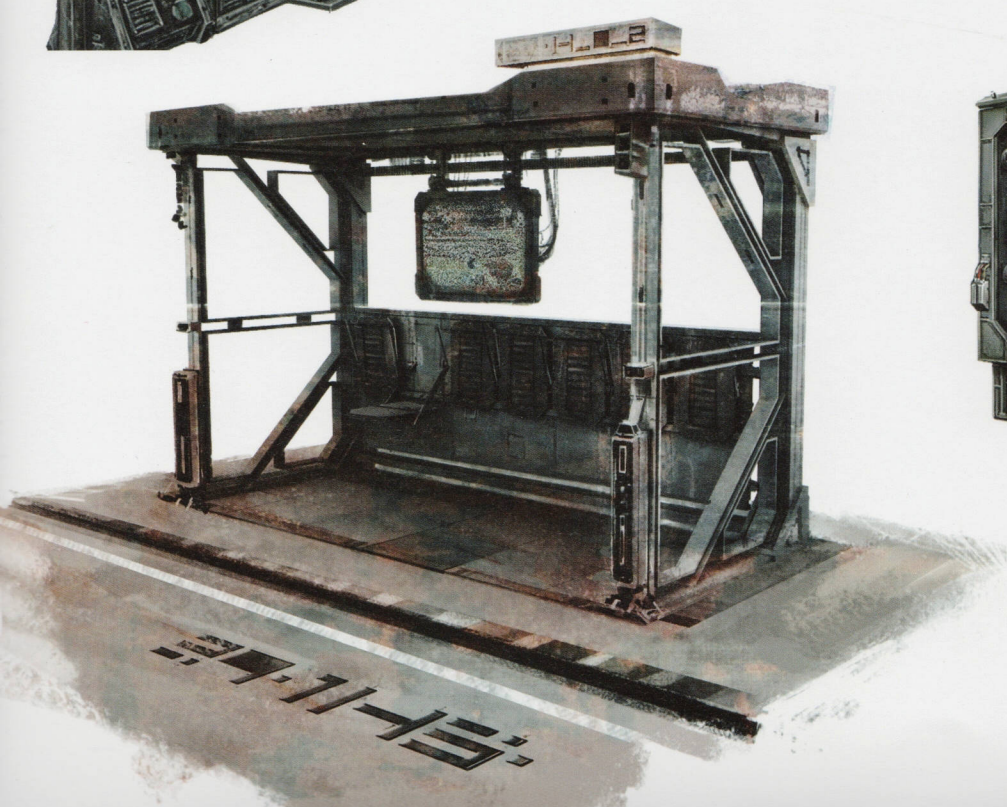
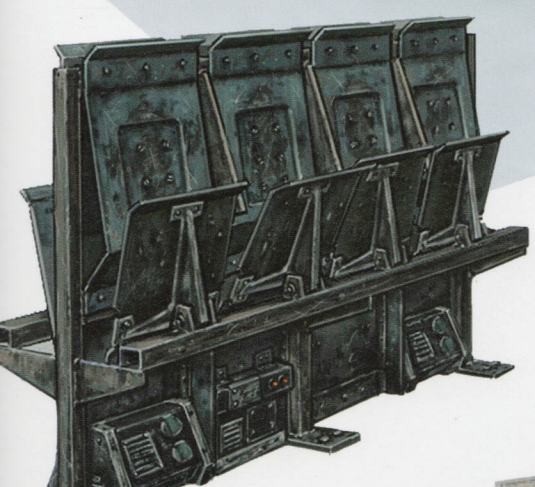
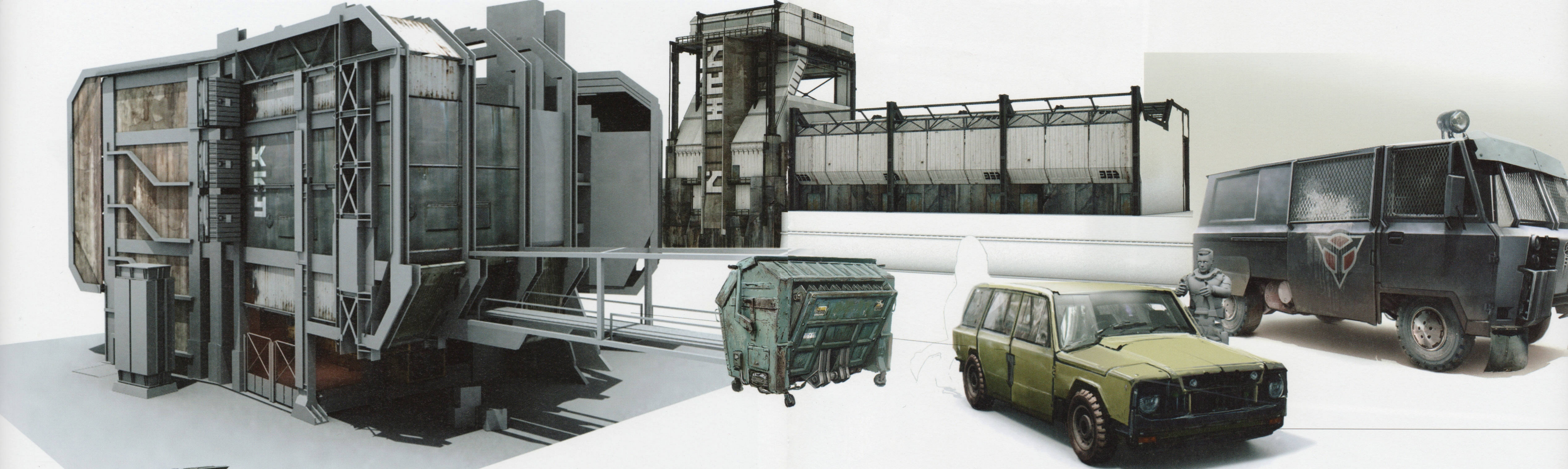
BY KBG GUIDES VISUAL DESIGN

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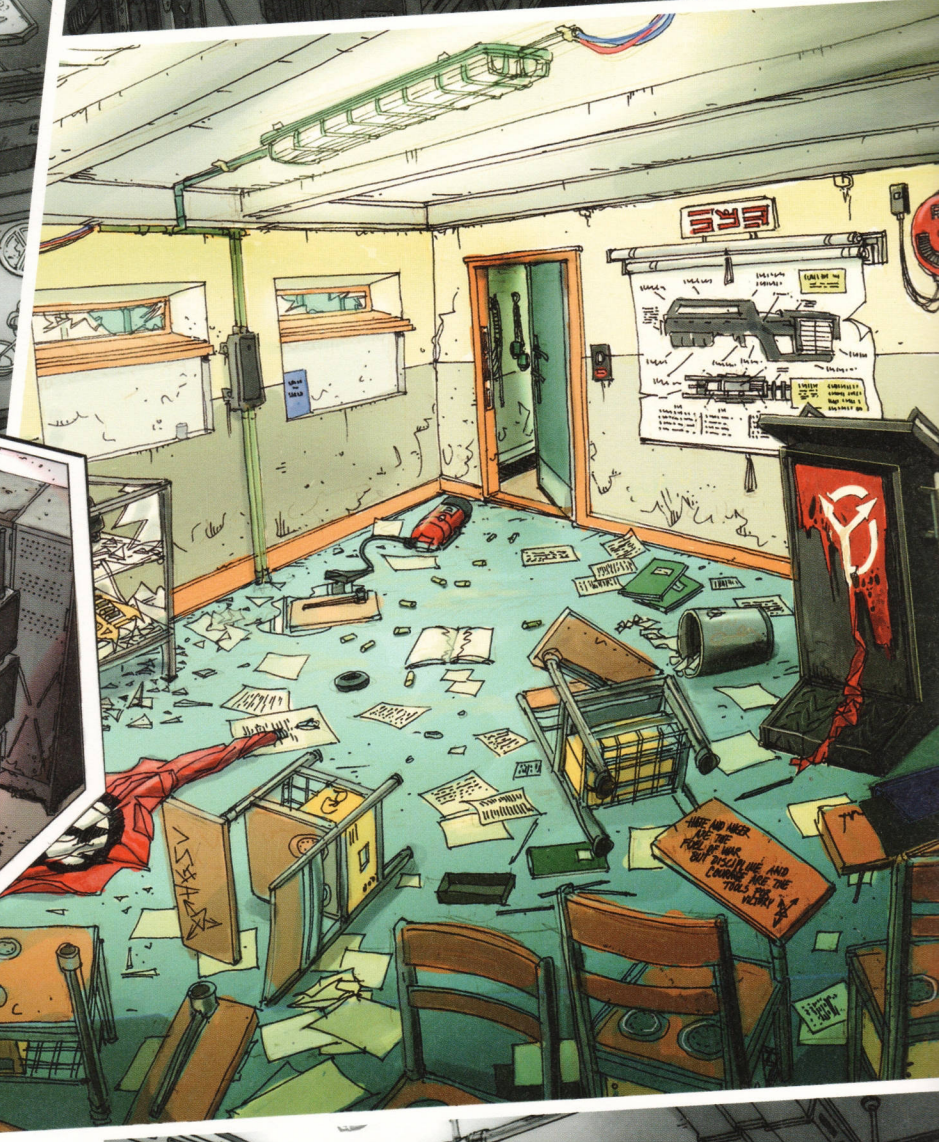
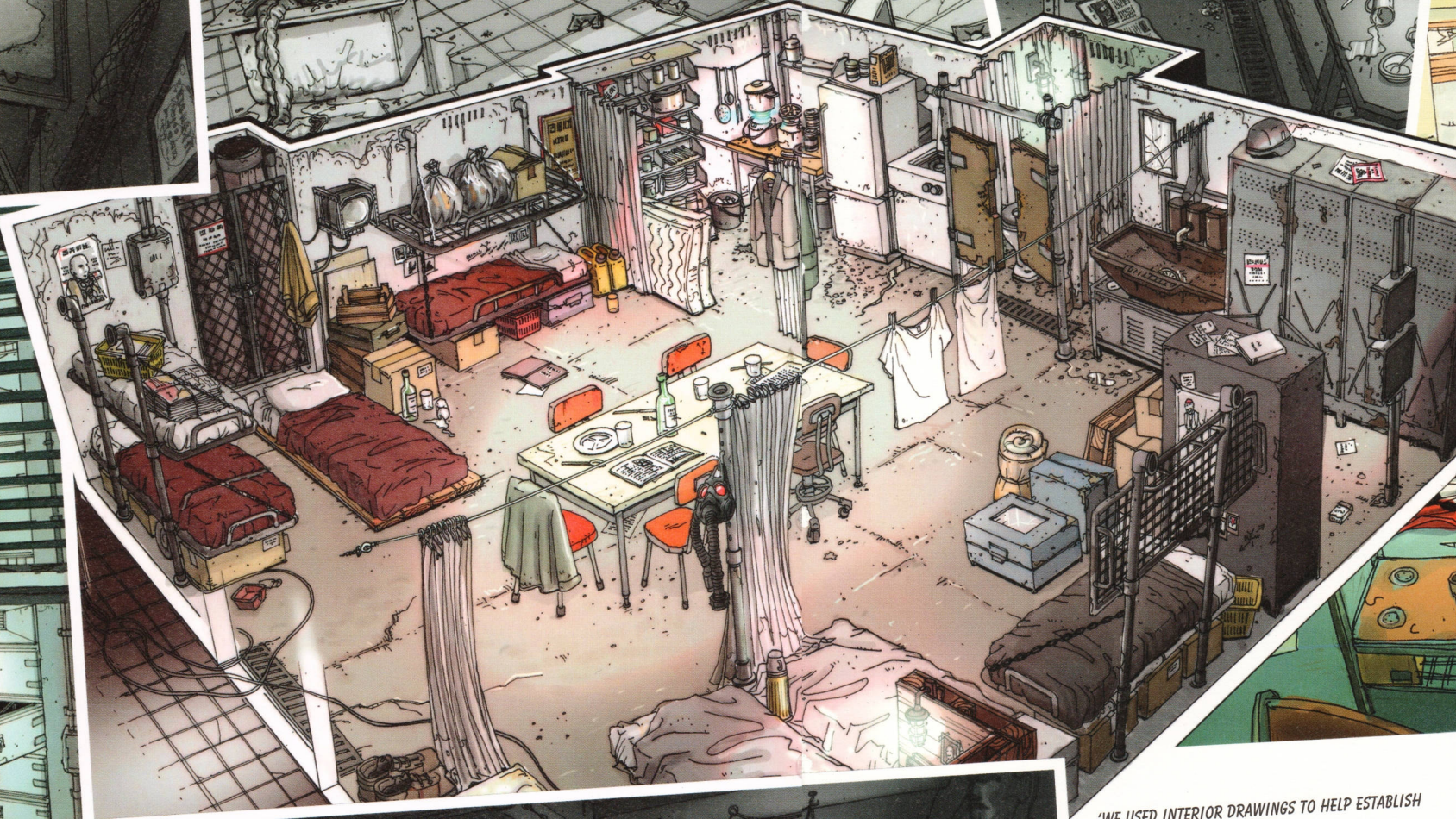
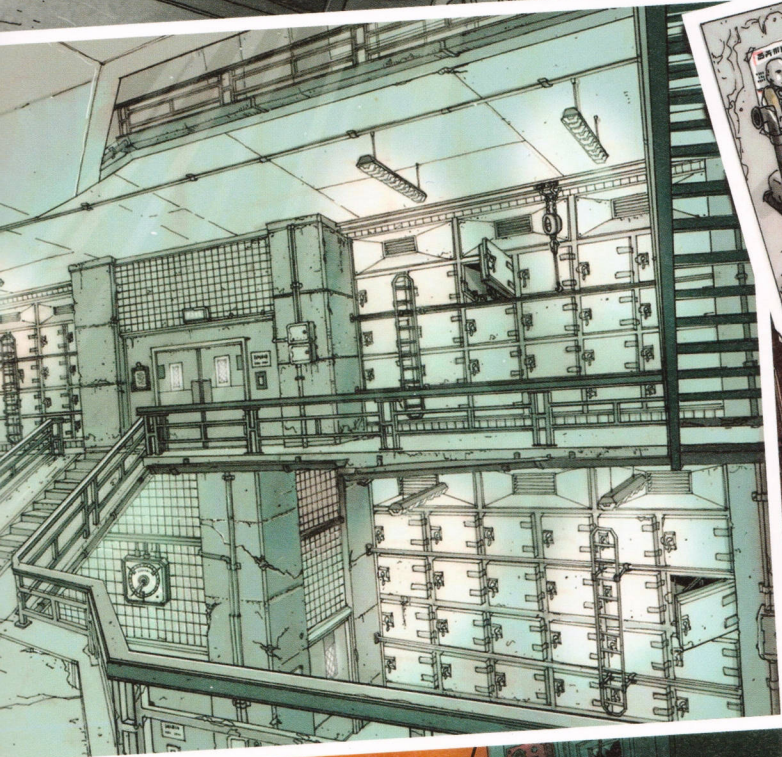
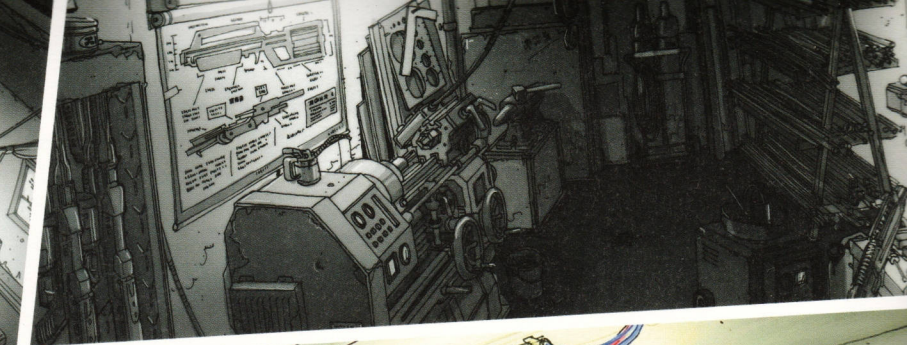
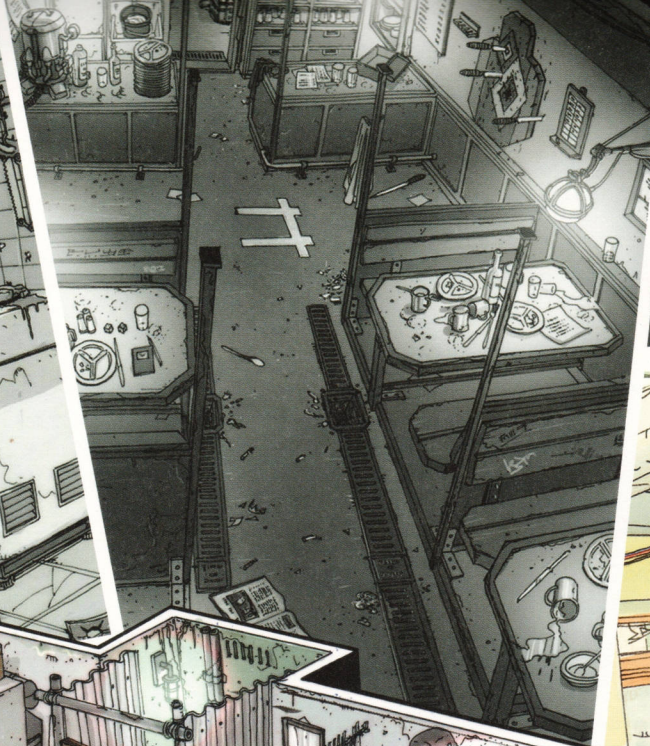
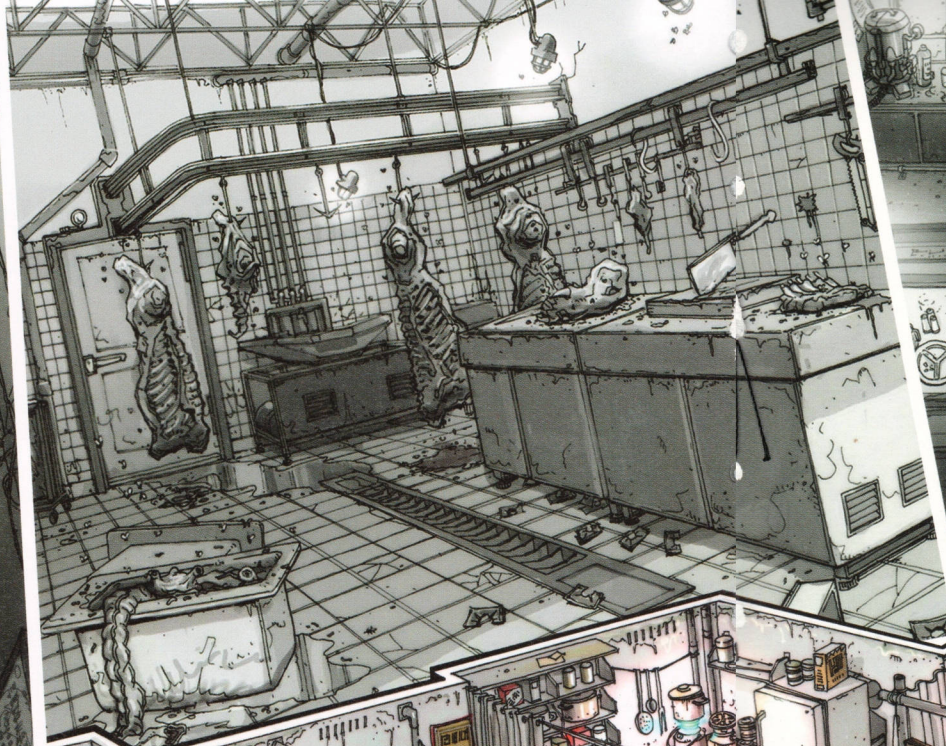




'In world design, we hardly ever looked at other games for inspiration, but rather at the world around us. Nowadays, you use [digital object] libraries for all kinds of objects and textures, but when we started, we simply took pictures of the stuff around us. We must have photographed every electricity pole, manhole cover, and teared wall texture within 500 yards of our office, so yes, Dutch people will recognize where some of our designs came from. Even the air is 'Dutch,' in a way. Without being aware of it, we filled skyboxes with the same color schemes and cloud shapes as the Dutch Masters did, back in the seventeenth century. And this makes sense, right? We are looking at the same skies as they did.'

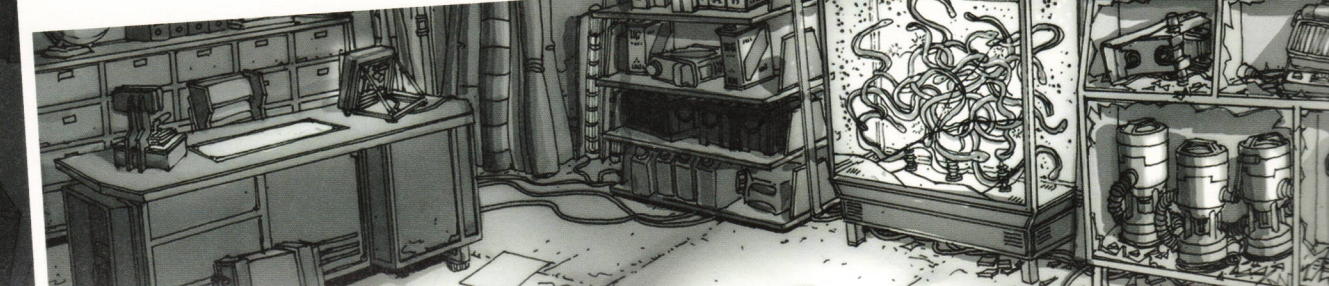
Roy Postma | Art Director

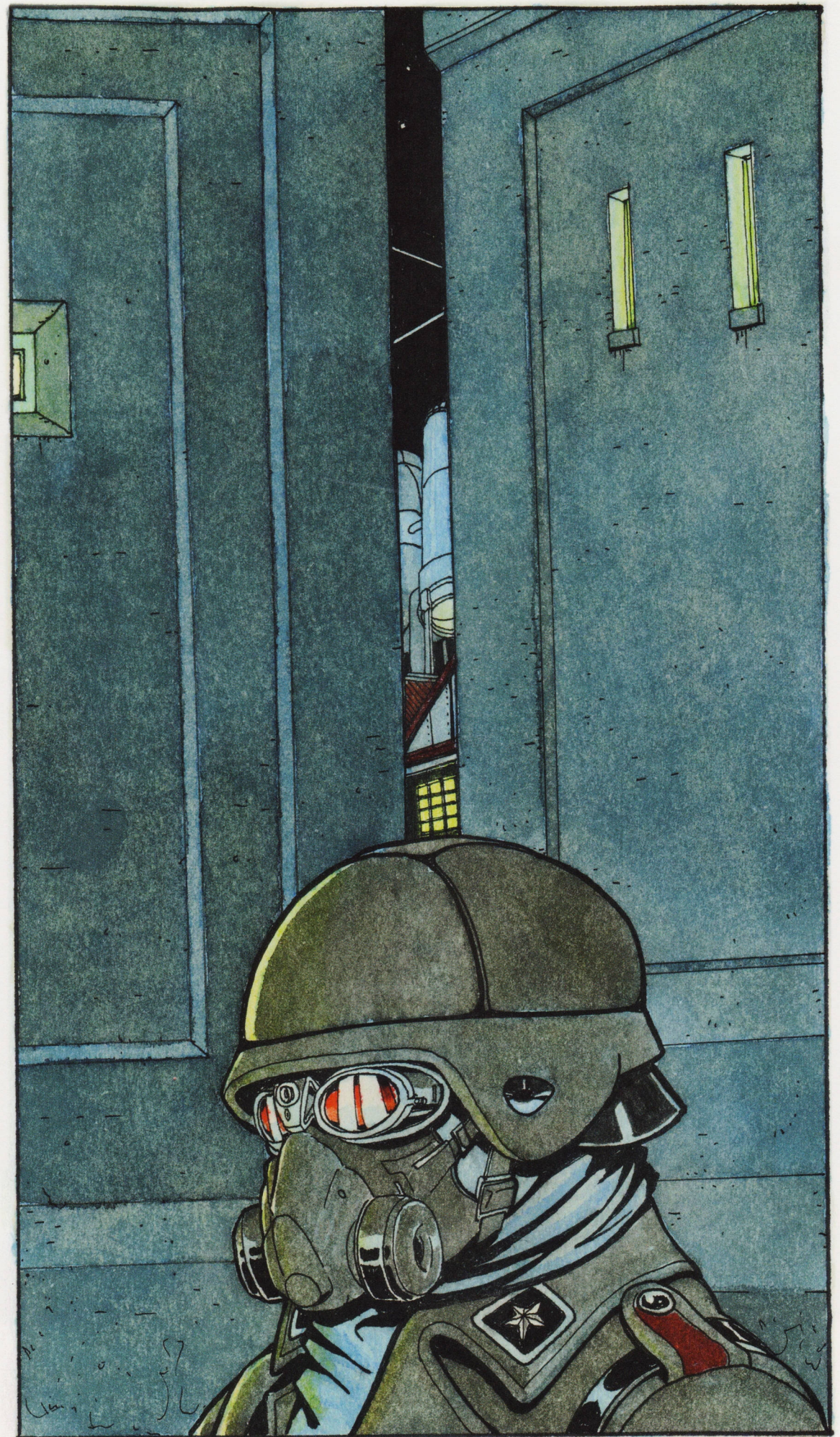
THE PEOPLE
AUTOMOBILES
PROPERTY OF
HELCHAN P

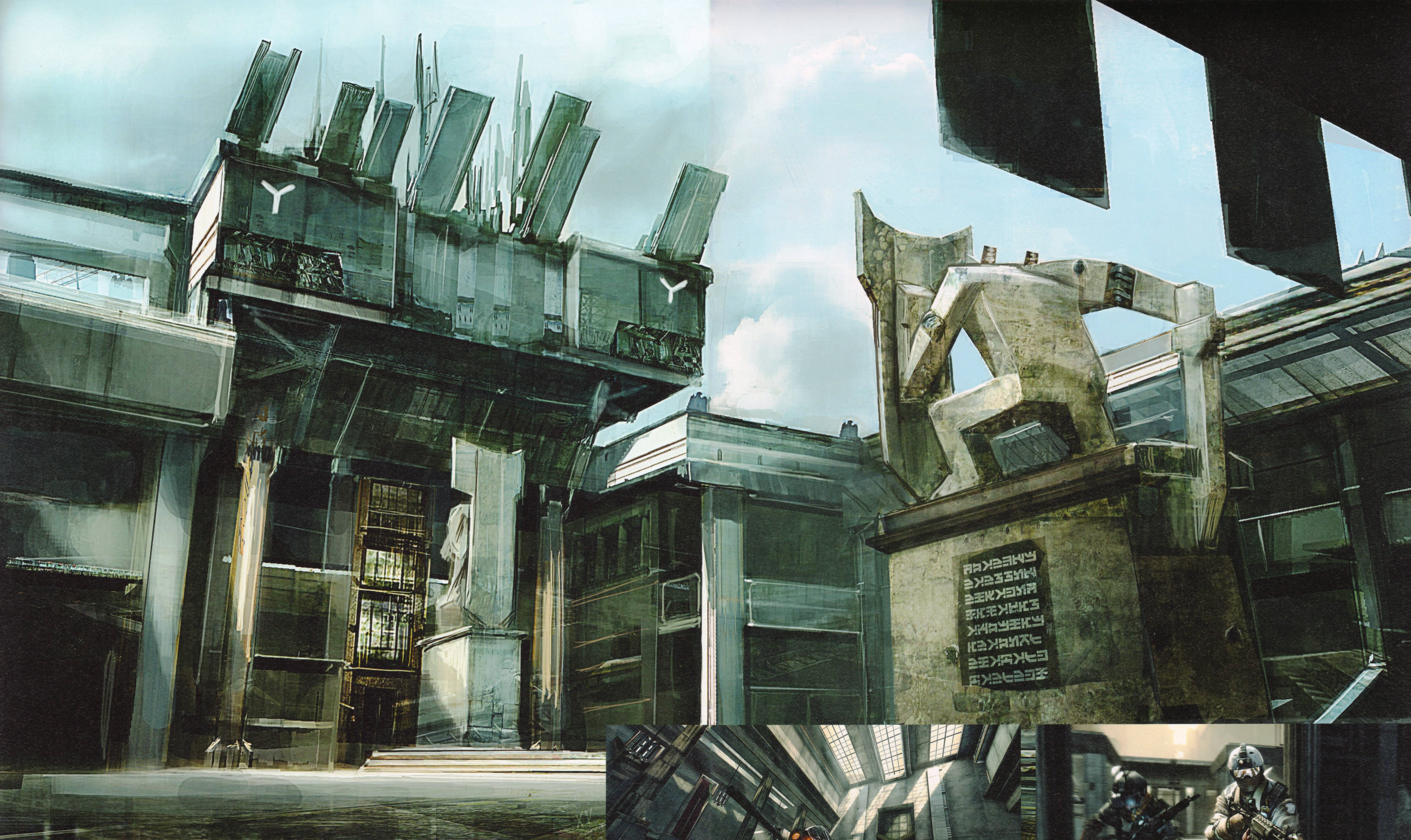


"WE USED INTERIOR DRAWINGS TO HELP ESTABLISH THE HUMAN SIDE OF THE HELGHAN ENEMY. THE MASKS HIDE THEIR PERSONALITY, WHO THEY ARE. IN SHOWING WHERE THEY SLEEP OR GO TO SCHOOL, YOU TICKLE THE PLAYER'S IMAGINATION: THESE POOR HELGHAST LIVE SUCH SOBER LIVES! HOPEFULLY, WE WILL ENGAGE THEIR EMPATHY TOO, AND HAVE THEM QUESTION THEIR ACTIONS AS ISA SOLDIERS; THE SCENARIO FOR KILLZONE ALLOWED FOR MANY SHADES OF GRAY."

MICHEL VOOGT | SENIOR VISUAL DESIGNER







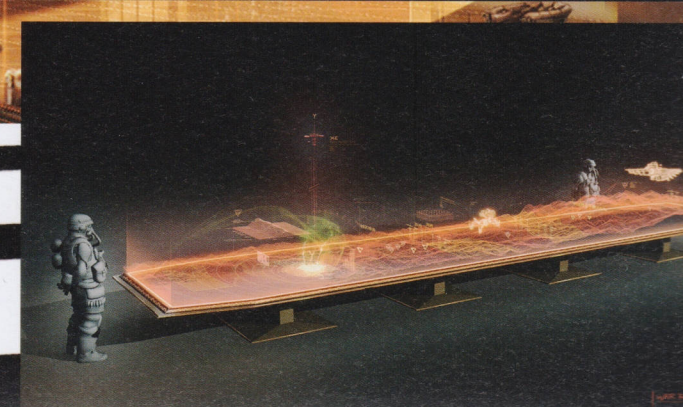
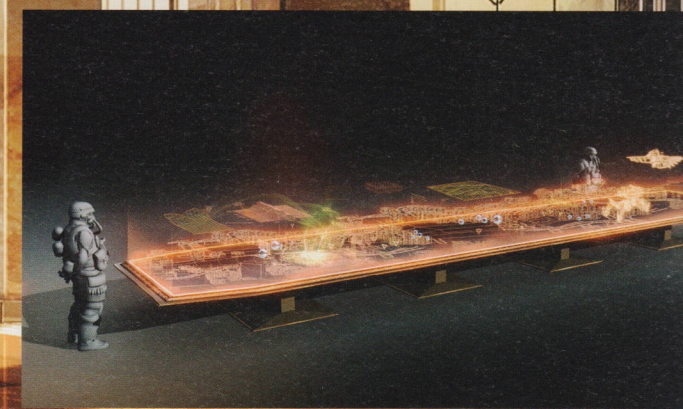
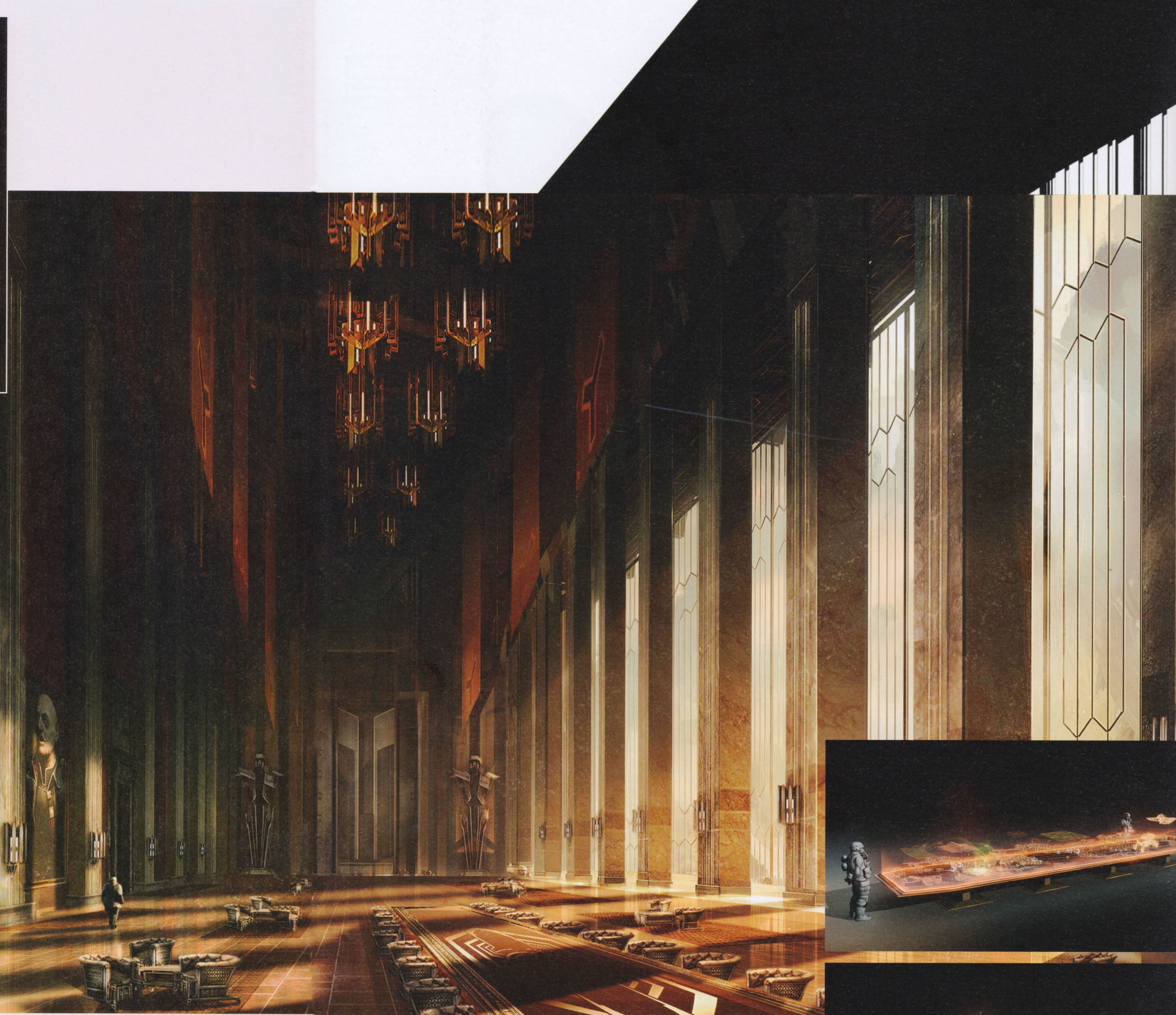




PALACE INTERIOR

- Powerful
- Overwhelming; made to make you feel small
- Long verticals to simulate height
- Firmly grounded
- Aggressive use of vertical plating & fins to strengthen the silhouette
- A combination of classic materials, dark metals, and bronze finishing
- Construction details are not hidden but used as decoration
- Albert Speer vs. dark industrial plating vs. a little Dolce & Gabbana

Internal Document | Style Guide Setup





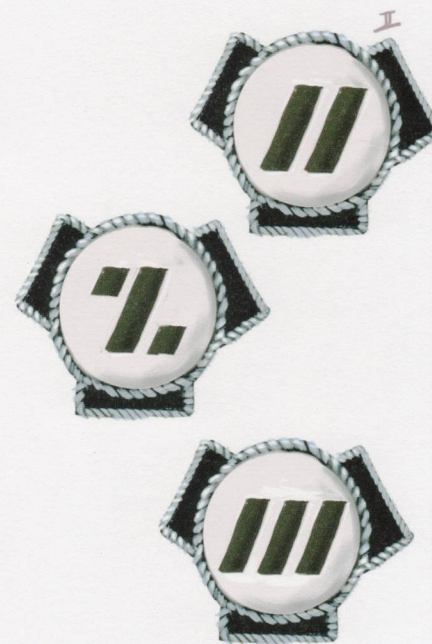
SCOLAR VISARI
PORTRAIT OF
VISARI AS
A YOUNG MAN



JORHAN STAHL
CHAIRMAN AND CEO OF
STAHL ARMS, THE LARGEST
WEAPONS MANUFACTURER
ON HELGHAN



BASIC RANKS



HIGH RANK



SPECIAL INSIGNIA







'The Frozen Shores are near Helghan's southern pole. Centuries ago, the southern seas were the primary source of oil for the early Helghan settlers, but the areas has been abandoned when Helghan shifted to a Petrusite-based economy.'

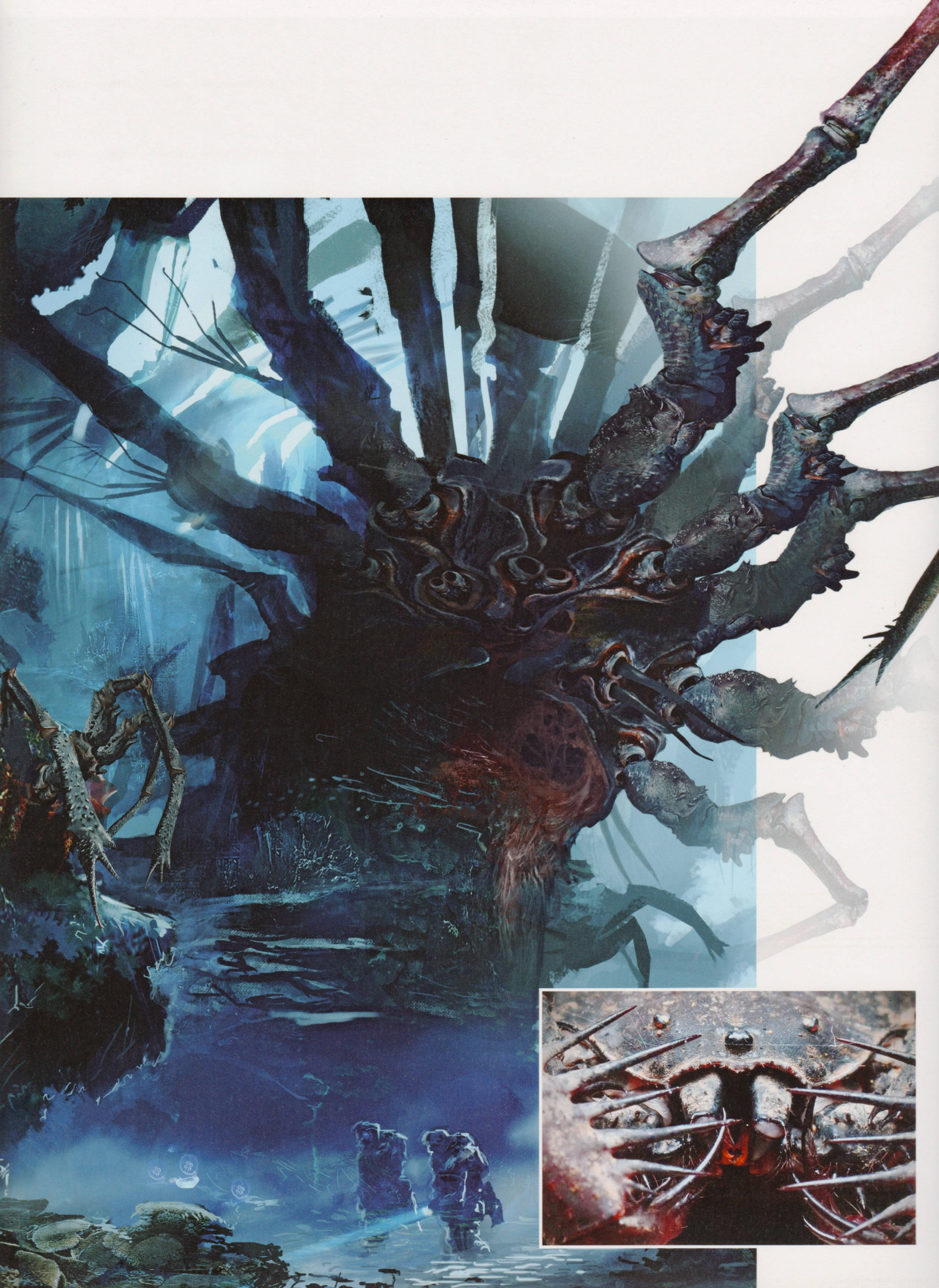
'These days, the souther coasts are littered with the remains of derelict oil rigs. The harsh storms that lash across the Helghan seas have ripped dozens of abandoned off-shore platforms from their moorings and have pushed them towards the coast.'

'Stuck in the thick pack ice around the coast, the constant bashing of the waves and the violently cold winds has started to turn their metal carcasses in grotesque ice sculptures.'

Internal Document | [Story & Art Style Guide kz3](#)







'The primordial forests of Helghan are unlike anything encountered on the other extraplanetary colonies. In Helghans evolutionary history the different radiation of the binary star system in combination with the high-energy petrusite mineral has given the edge to cyanobacteria (blue algae). These have developed a symbiotic relationship with early eukariotic (multicelled) lifeforms. Helghan evolutionary timeline lags at least half a billion years behind Earth and the highest evolved lifeforms are all similar to earth's arthro-pods.'

'Helghans's flora has evolved along the line of very large sedentary insects and crustaceans. More accurately they are mostly sedentary as they migrate during the spawning season which happens every couple of years to lay eggs throughout the forests. Once the eggs are laid they sometimes move hundreds of miles away to reroot themselves again. They feed on smaller krill-like insects that are attracted to their red bioluminescent blood which they can pump into the veins close to their mouth. Some of the planet feed on larger lifeforms and can be dangerous to humans.'

'The fauna of Helghan shows strong similarities with earth Arthropods and in many cases look identical to spider or beetles. Helghan's lifeforms have not evolved to mammalian levels yet.'


Internal Document | Style & Art Guide K23











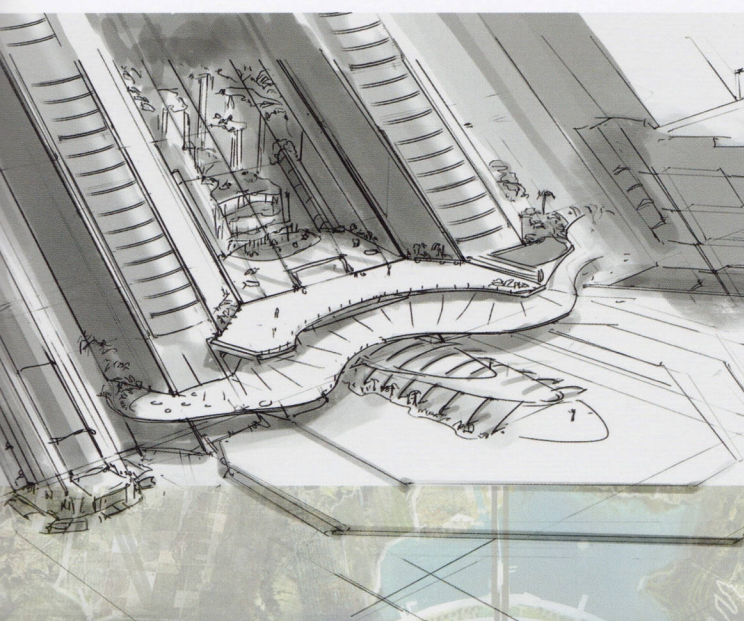
LIVING WITH THE ENEMY

Building a future city in a digital environment requires careful city planning. There's geography to take into consideration: the way digital citizens move through the city, where they supposedly live, work, and do their shopping. Architecture is designed from scratch, but designers also need to infuse buildings with a shot of history: players will never truly 'believe' in a game environment if it doesn't show the wear and tear of everyday use.

The city of Vekta, the battleground in *Killzone Shadow Fall*, has all this and more. It's sixty-odd years after the destruction of Helghan in *Killzone 3*, and as far as the story is concerned, everything has changed. Half of Vekta has been given to the Helghast, as part of a political settlement. The two sides of the planet are separated by a wall. After so many years, the look-and-feel of the city clearly reflects the differences between the Vektan and Helghan people.

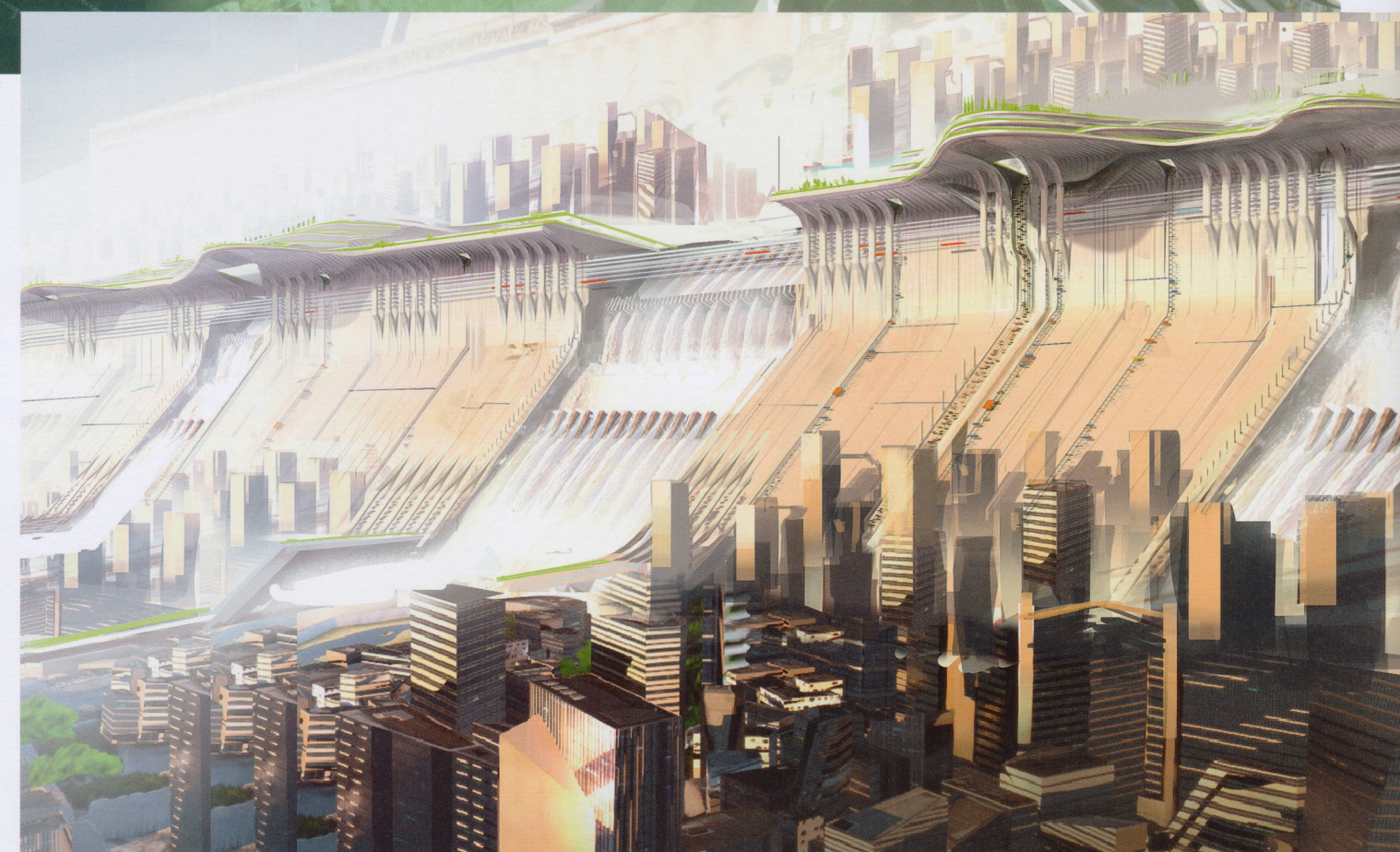
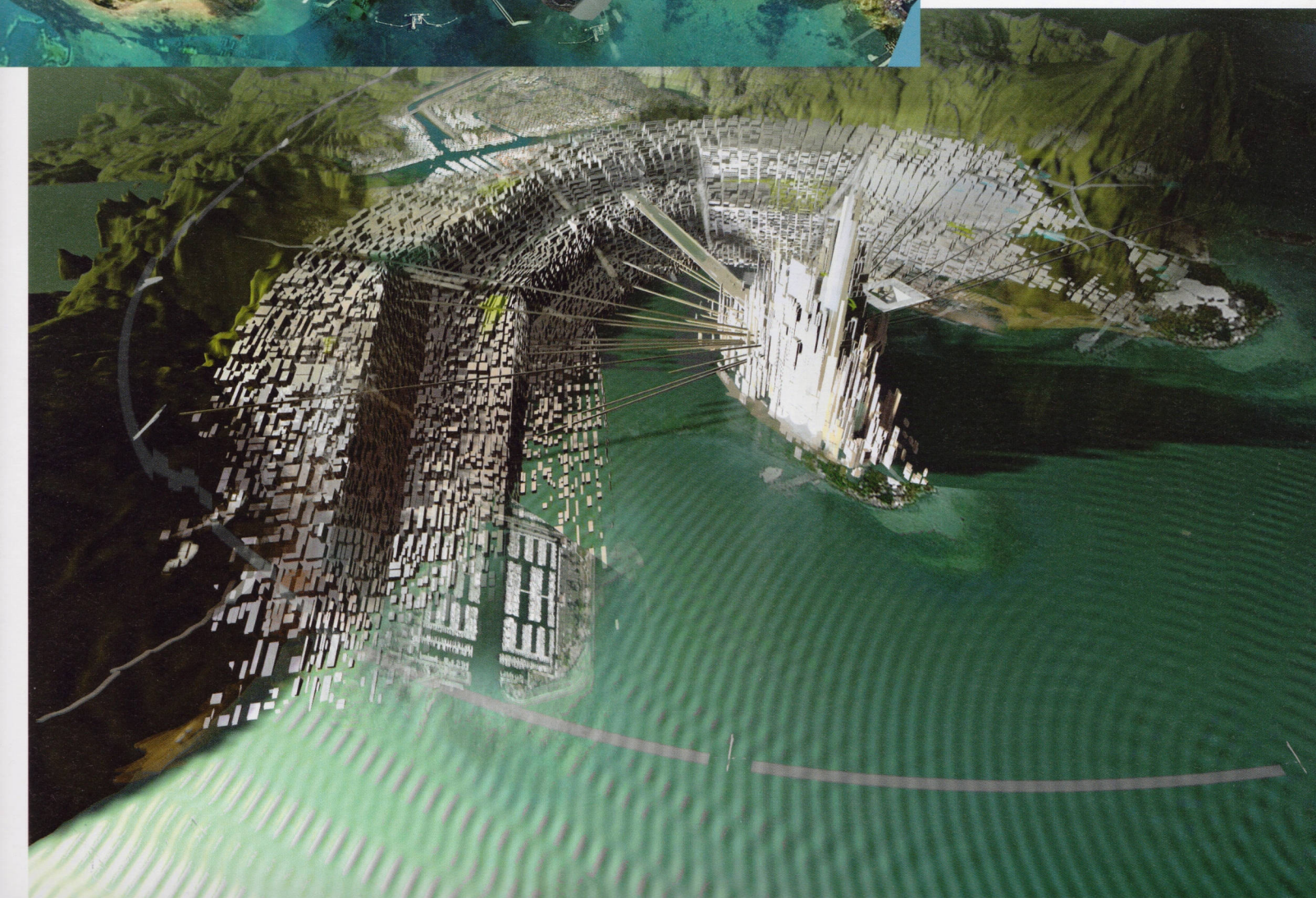
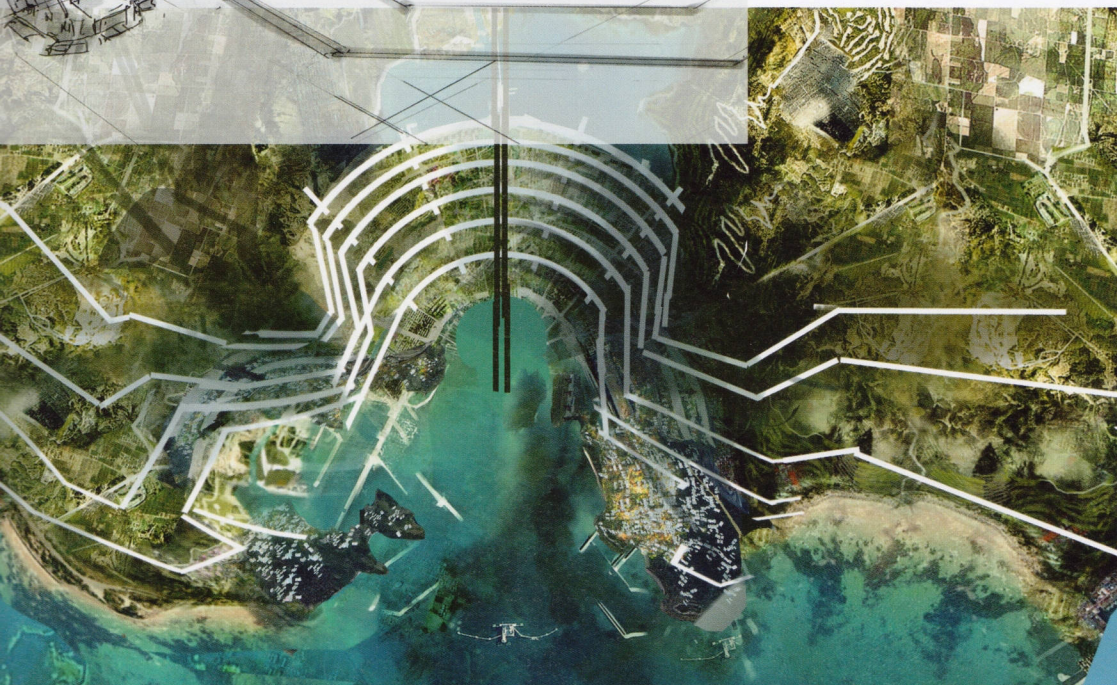
The Vektan side remains more or less unchanged: people live happy, wealthy lives in luxury condos overlooking the lush Templar Park. Over the wall, circumstances are different. It's a place of forced labor and police oppression, and the shopping centers the Vektans hold so dear are filled with squatters. It's the same city but with different histories, symbolizing the dualism that defines the *Killzone* games.





'We envisioned Vekta as a prestigious mega project, a seat of power and wealth. Its location on a dam front is a statement of environmental awareness: this city is completely self-sustaining and green.'

Misja Baas | Art Director

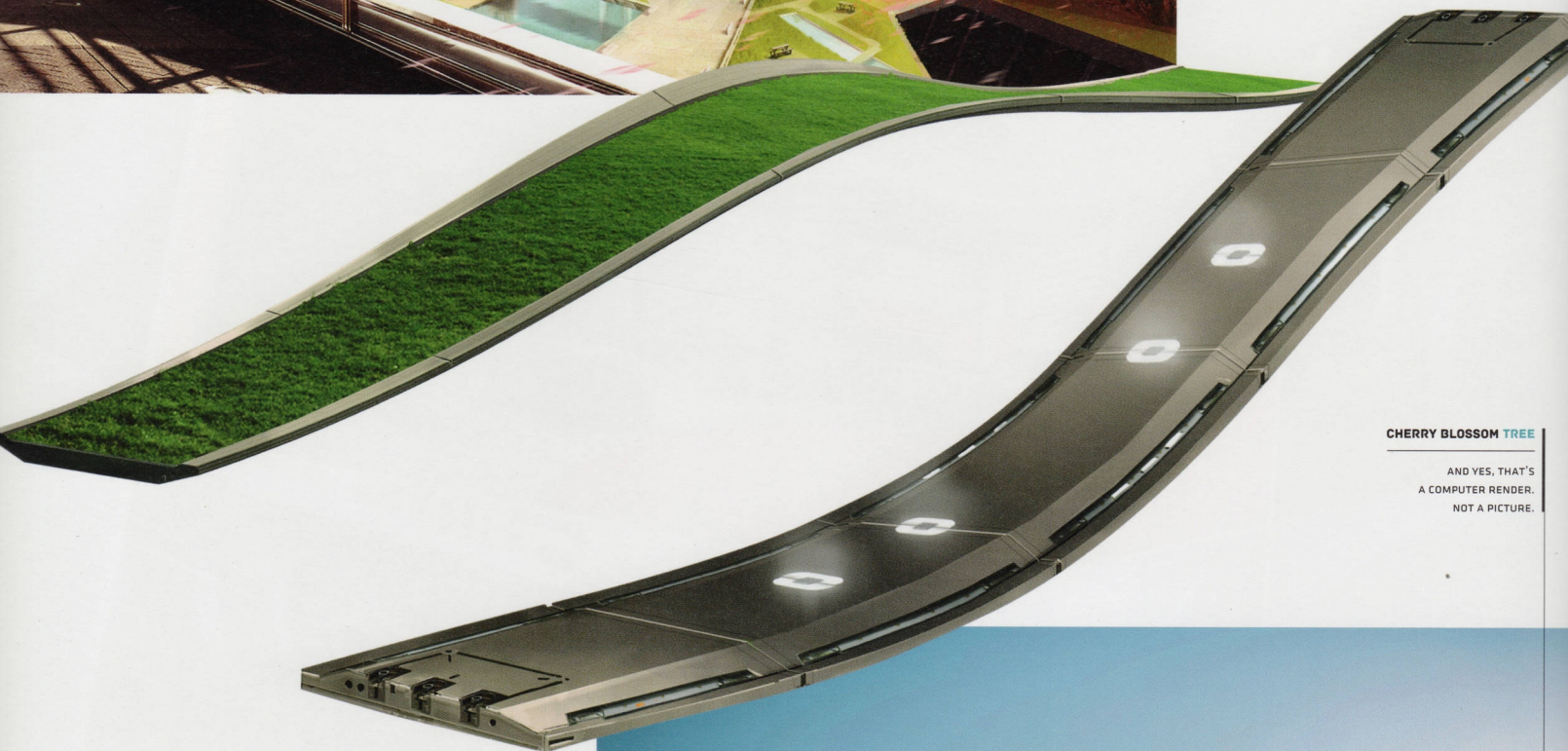
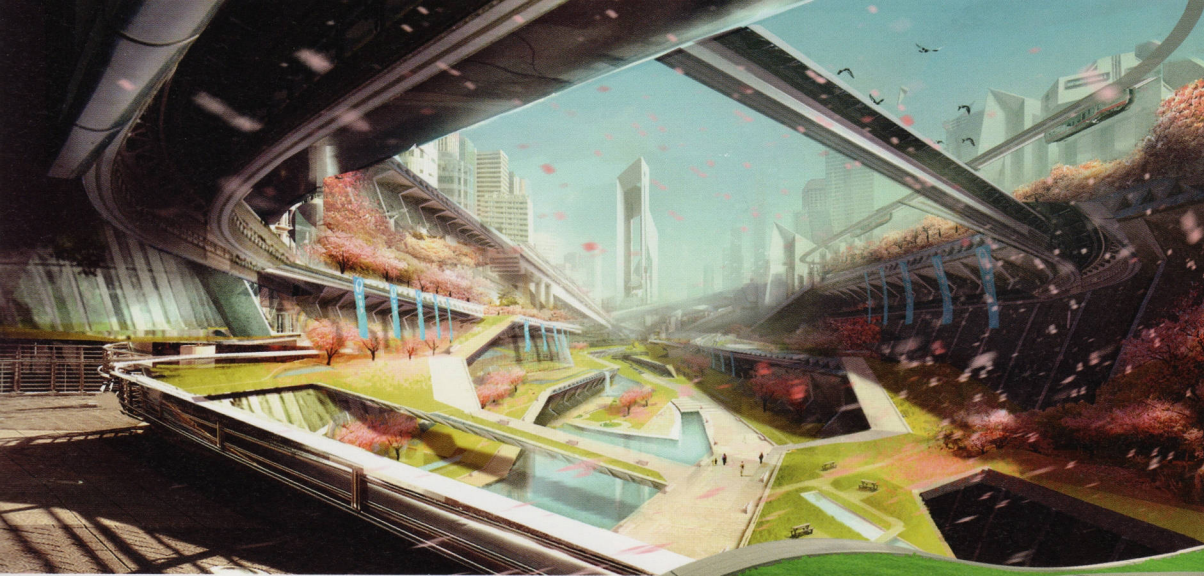


LIVE THE DREAM

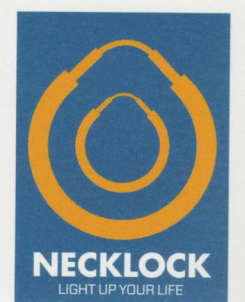
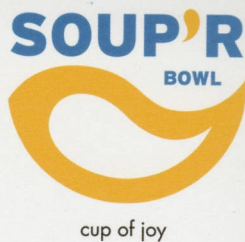
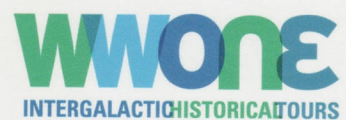
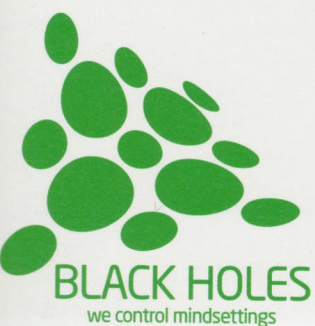
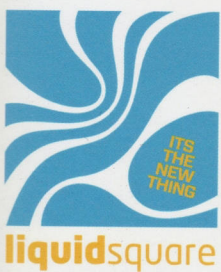
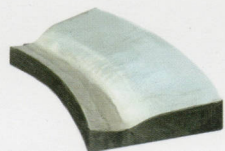
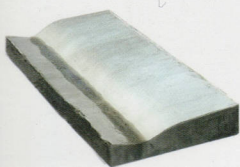
parks overlooking Vekta Bay.
enhancing infrastructure.
ous condos. Vekta offers you
h life of your imagination.
rket shopping malls, a 24/7
y drone system and City Nets
d Dualrail grid ensure you
te your time to what matters
ing.

 **VEKTACITY**





CHERRY BLOSSOM TREE
AND YES, THAT'S
A COMPUTER RENDER.
NOT A PICTURE.



'With the Killzone series, we've always aimed for a high visual fidelity to support the game's mood and setting. Before the PlayStation 4, we'd spent a lot of our graphics power to create detail; dirt, grit, and destruction. We were masters of rebar and fully dynamic broken concrete. With the extra power we got when moving to the PlayStation 4, we could finally work with more complex physical phenomena: light, reflection, and refraction. So in Shadow Fall, you'll see a lot of attention to reflections: from materials, glass, the sun, in the dust in the air... it's everywhere around you.'

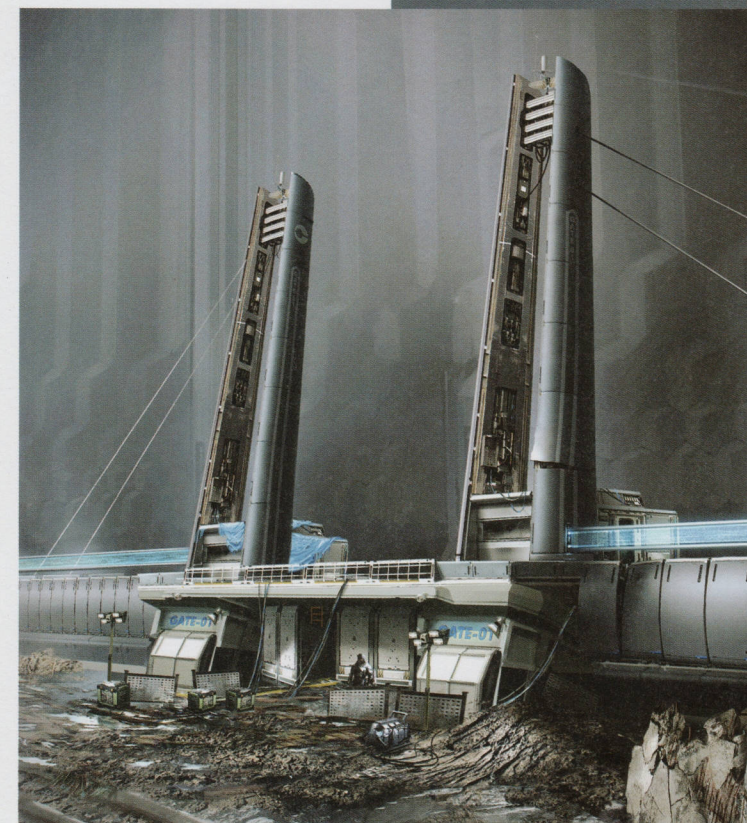
Michiel van der Leeuw | Technical Director





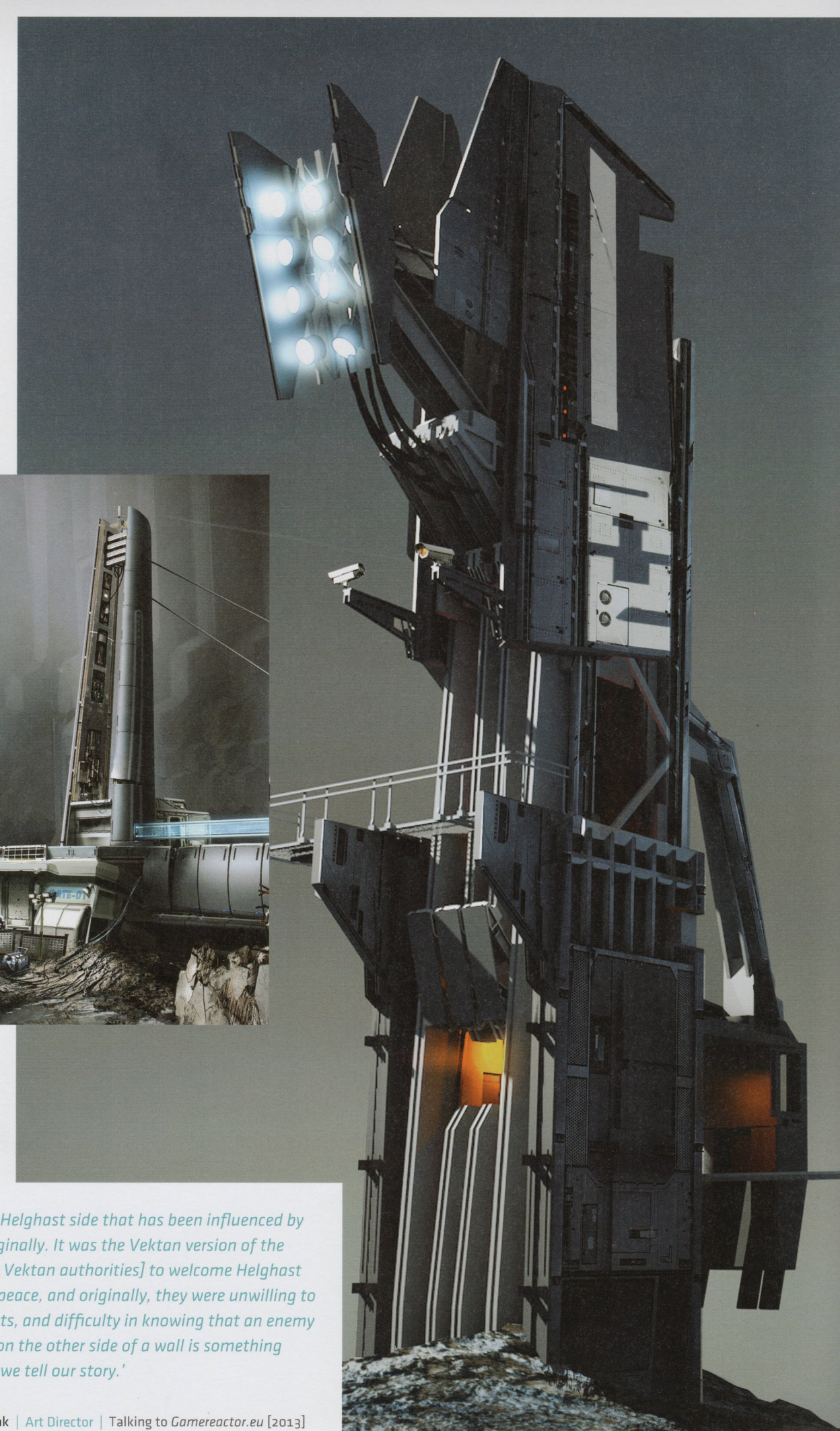
'The design team has been inspired by movies like Blade Runner, Alien, Prometheus as well as Judge Dredd and other comic book worlds. We pick up and digest as much as we worked on expanding Vekta. Early on with Shadow Fall we decided to try and create a more realistic world with a functioning infrastructure and modern architecture. At first when we began work with the concept art there wasn't a wall, that idea came a few months into the project. Working with the contrast between what can be described as heaven and hell has been extremely interesting work for me as art director. On the one side there is freedom and a wealth of opportunities. On the Helghast side there is oppression and we've worked hard to drive home the vision of a totalitarian side of a city where the city plan is the same on both sides.'

Arjan Bak | Art Director | Talking to Gamereactor.eu [2013]



'It is important for us to show a Helghast side that has been influenced by them, but not built by them originally. It was the Vektan version of the United Nations that forced [the Vektan authorities] to welcome Helghast to Vekta City in order to broker peace, and originally, they were unwilling to accept this. The tension, conflicts, and difficulty in knowing that an enemy you've fought for years resides on the other side of a wall is something we've really tried to leverage as we tell our story.'

Arjan Bak | Art Director | Talking to Gamereactor.eu [2013]





KILLZONE | EARLY SKETCHES



KILLZONE | LIBERATION



KILLZONE | 2



KILLZONE | 3





KILLZONE | MERCENARY

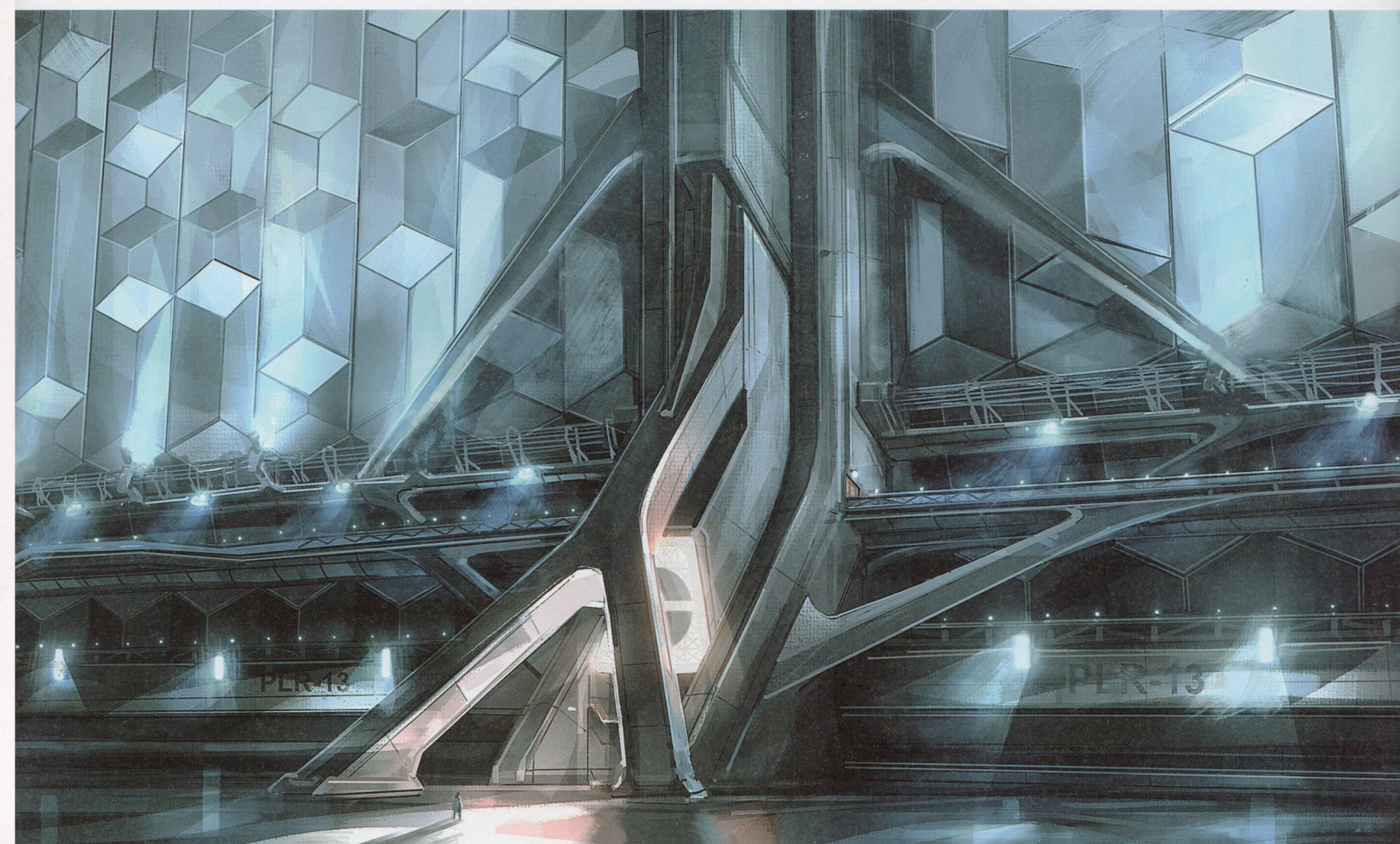
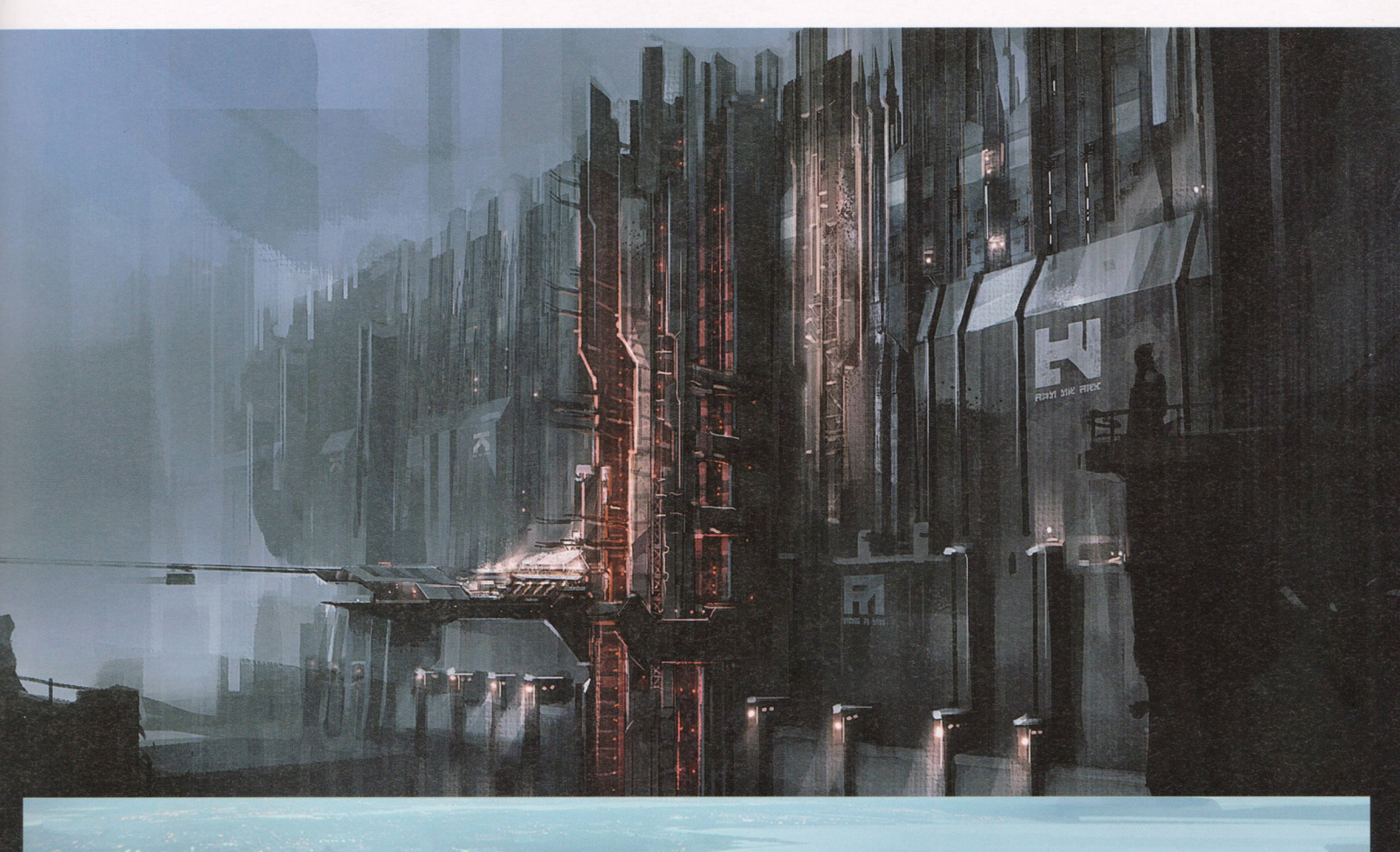


KILLZONE | SHADOW FALL



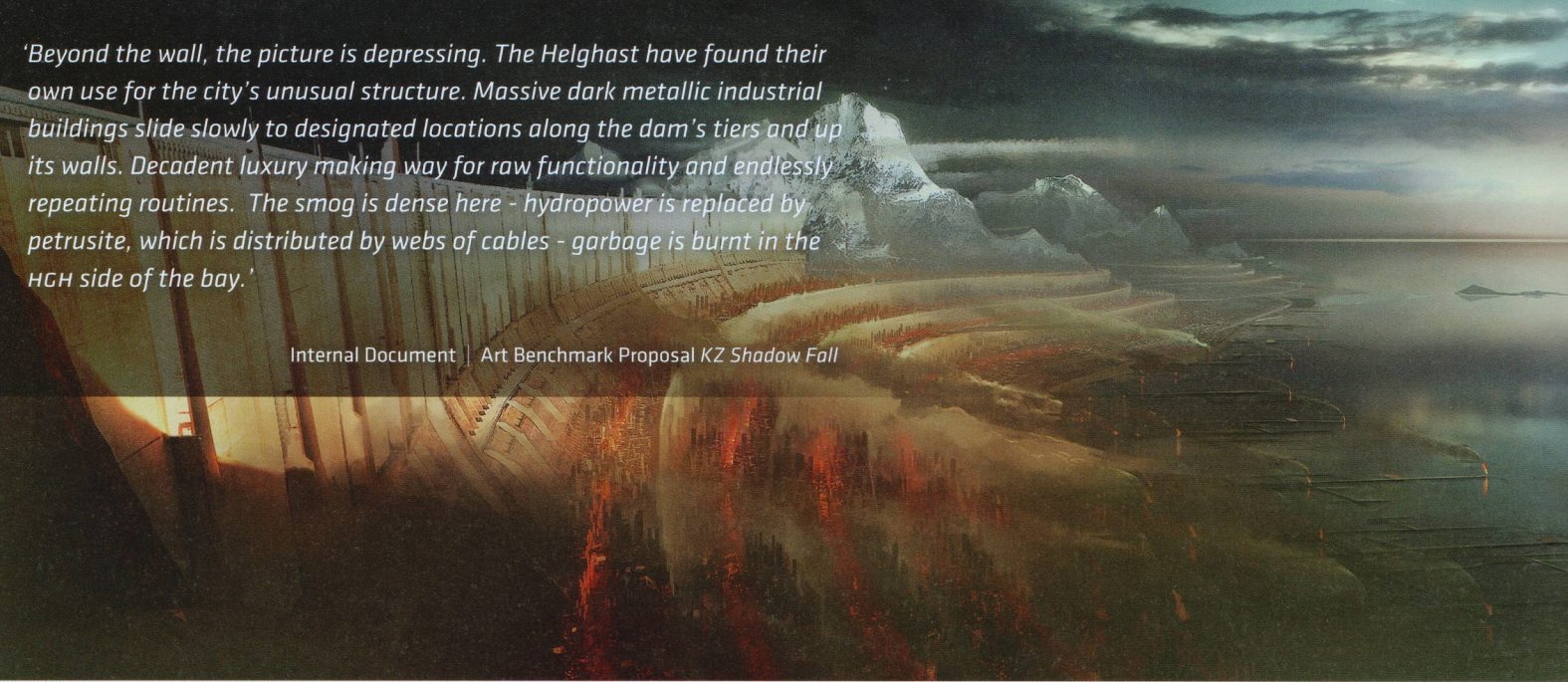
KILLZONE | SHADOW FALL





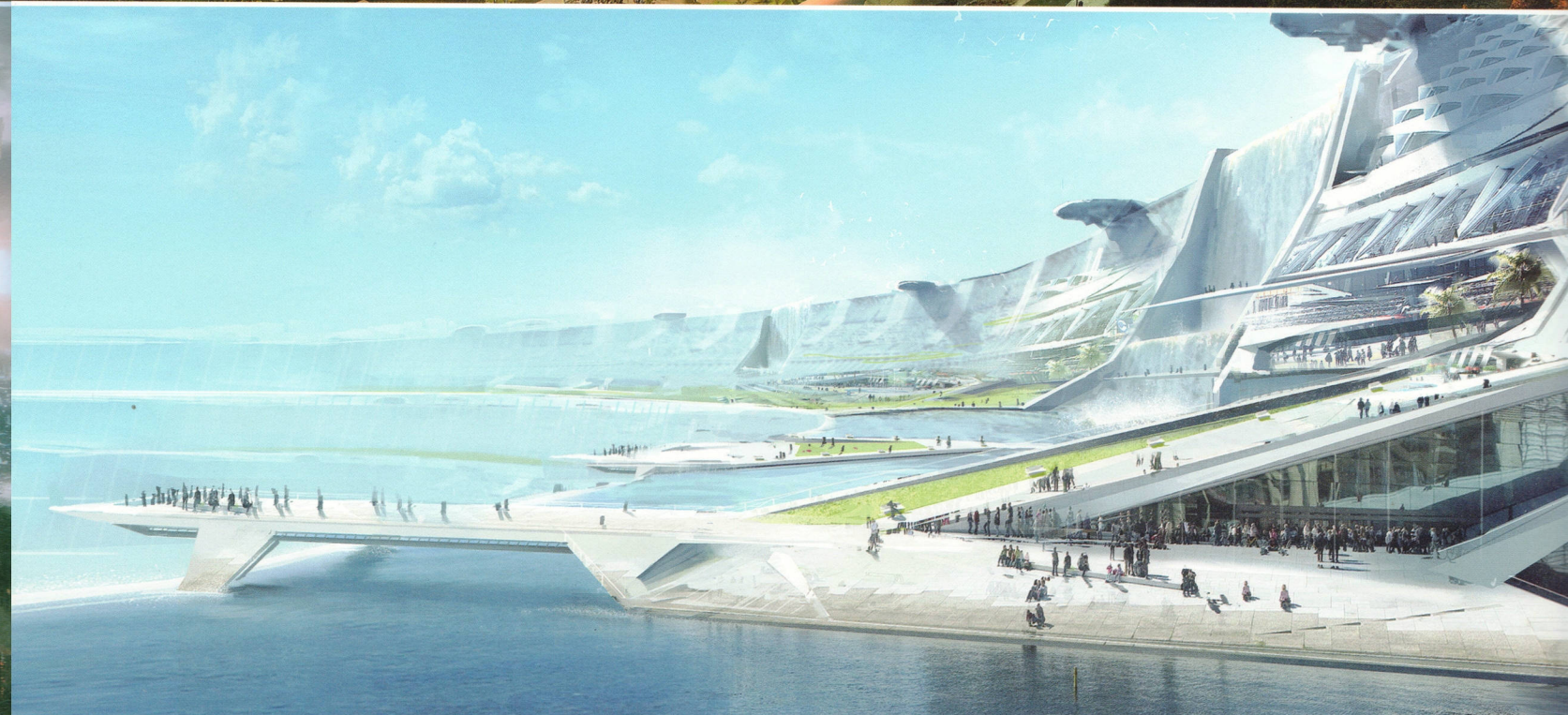
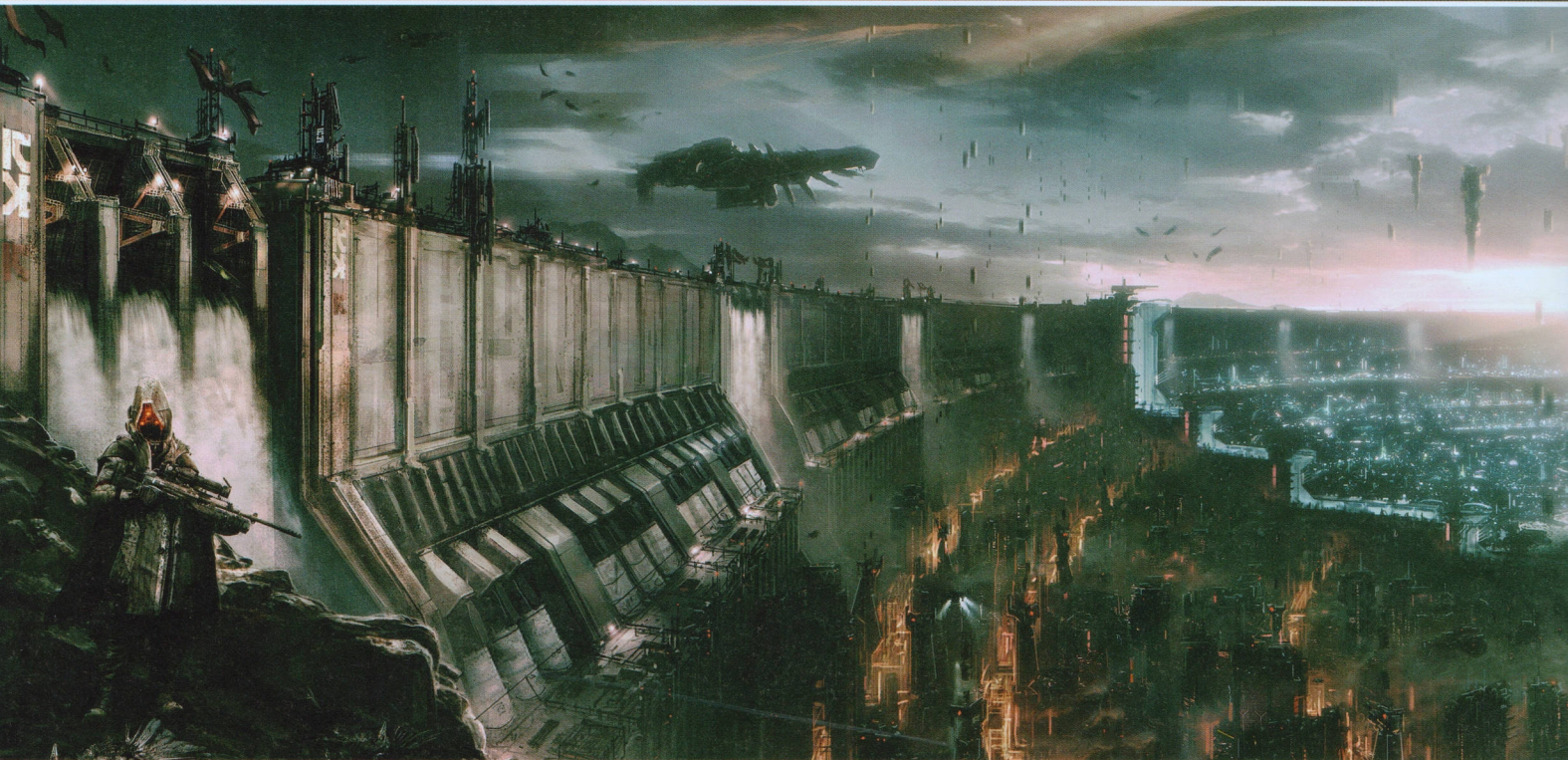
'Something that really resonated with us was the idea of an Iron Curtain in space - the idea of a cold war. That means we don't have to have every battle cranked up to 11 all the time, and that gives us a lot more time to tell our story and soak up the background.'

Steven ter Heide | Game Director | Talking to *IGN.com* [2013]



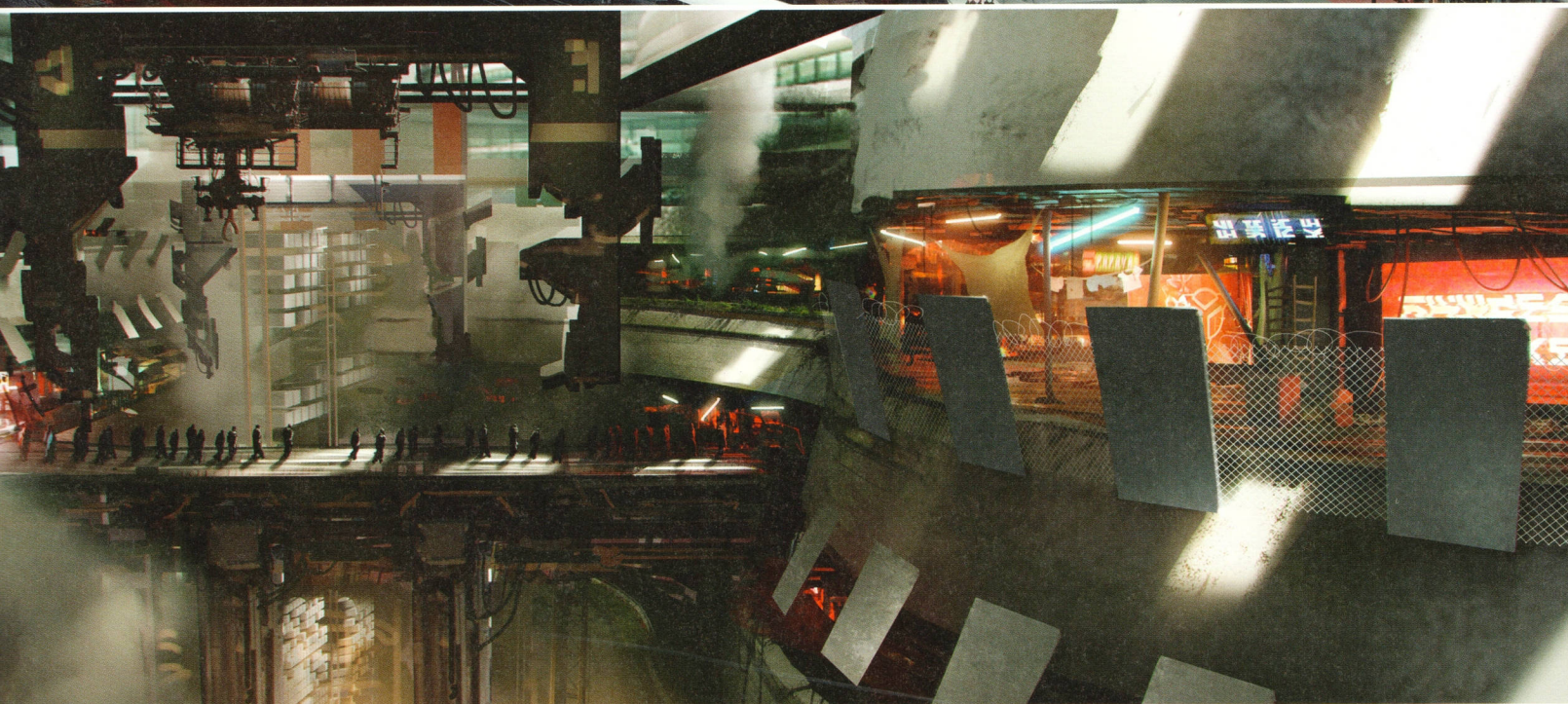
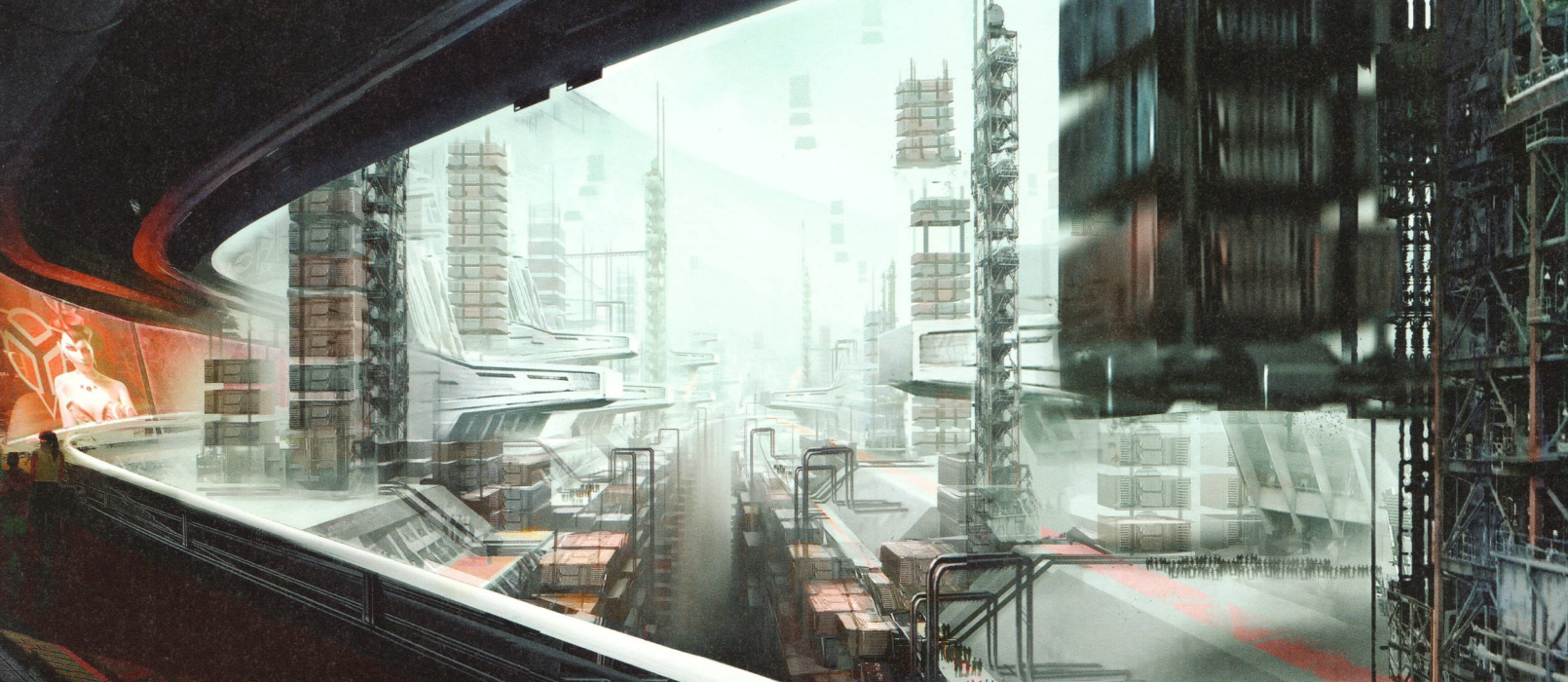
'Beyond the wall, the picture is depressing. The Helghast have found their own use for the city's unusual structure. Massive dark metallic industrial buildings slide slowly to designated locations along the dam's tiers and up its walls. Decadent luxury making way for raw functionality and endlessly repeating routines. The smog is dense here - hydropower is replaced by petrusite, which is distributed by webs of cables - garbage is burnt in the HGH side of the bay.'

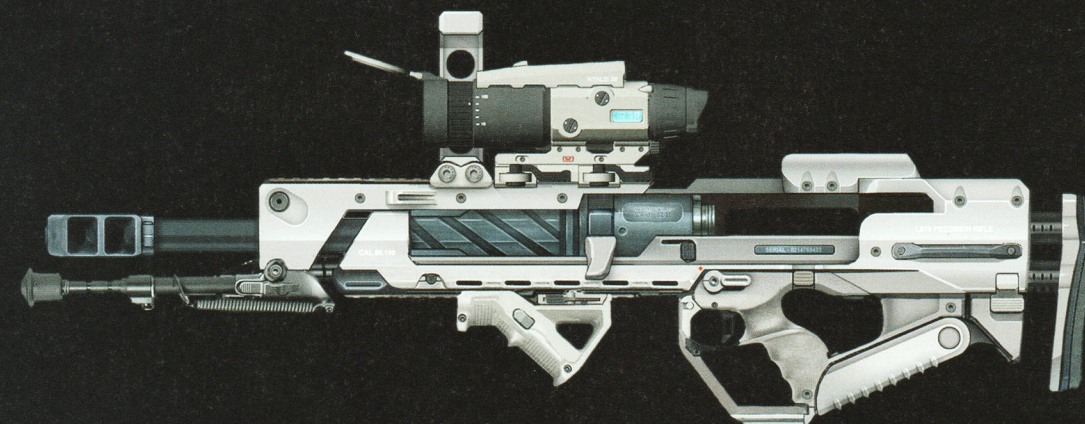
Internal Document | Art Benchmark Proposal KZ Shadow Fall



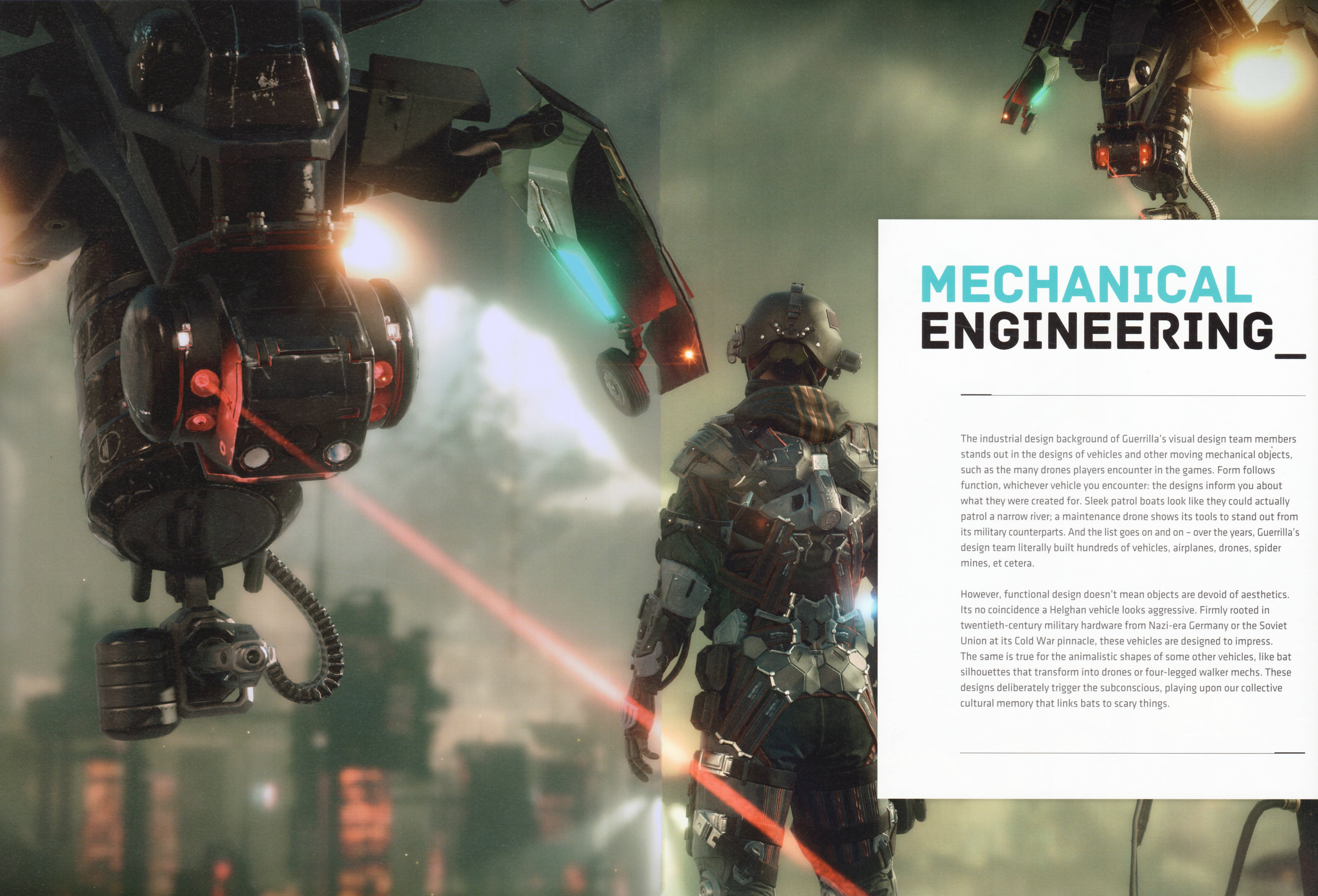
'Golden light bathes the dam wall and its complex, multi-layered skyline, light glistens of the myriad of windows of tall, imposing buildings, lush waterways and imposing waterfalls crashing down from the top tier. Highlights are offset by deep shadows cast by the massive dividing wall, the vertical waterways, and platforms extending out and overlapping the Dam's tiers. These shadows are brought to life by the ever-flashing lights of commercial signage, some of them covering whole buildings or sections of the dam wall.'

Internal Document | Art Benchmark Proposal KZ Shadow Fall





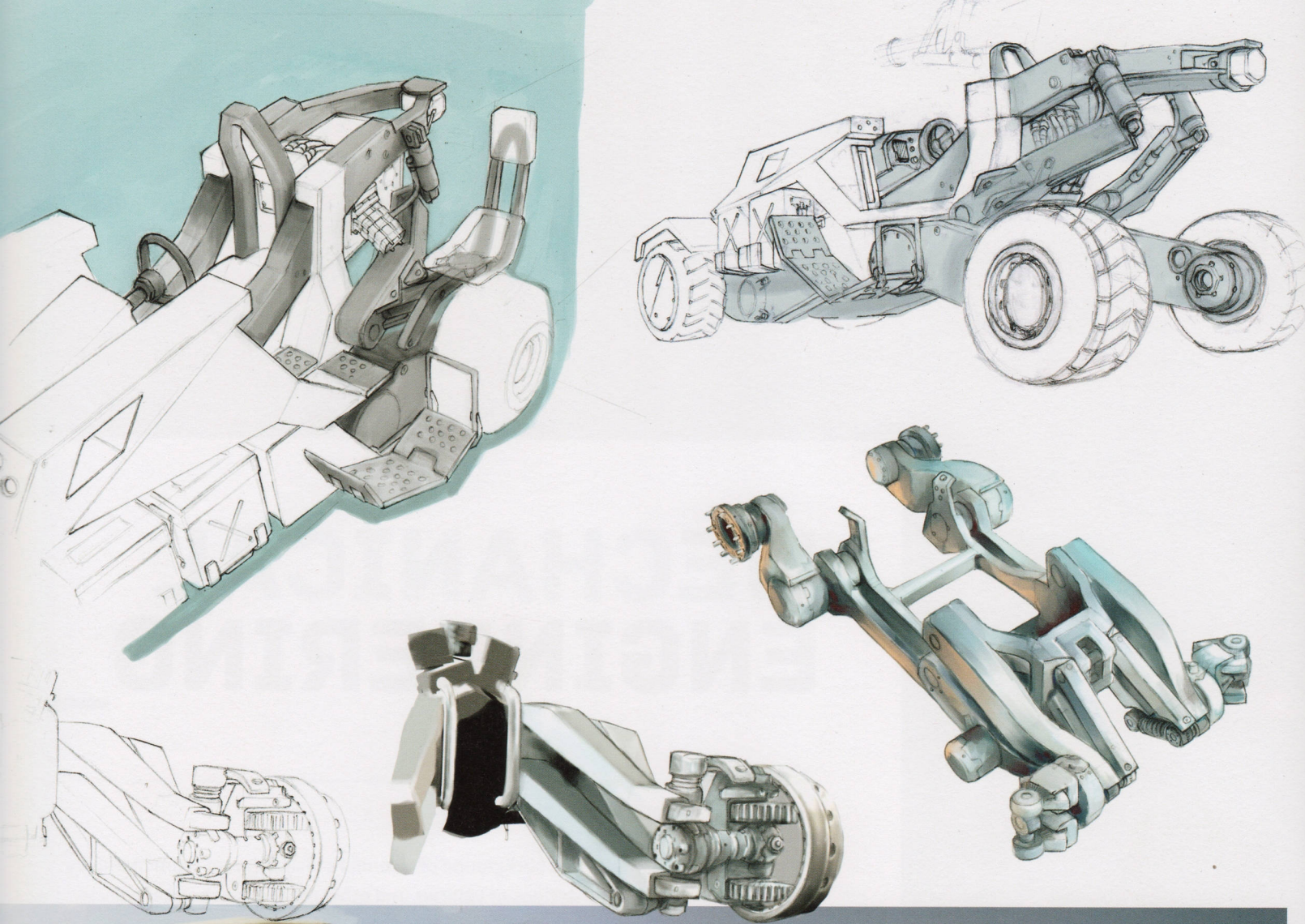




MECHANICAL ENGINEERING_

The industrial design background of Guerrilla's visual design team members stands out in the designs of vehicles and other moving mechanical objects, such as the many drones players encounter in the games. Form follows function, whichever vehicle you encounter: the designs inform you about what they were created for. Sleek patrol boats look like they could actually patrol a narrow river; a maintenance drone shows its tools to stand out from its military counterparts. And the list goes on and on – over the years, Guerrilla's design team literally built hundreds of vehicles, airplanes, drones, spider mines, et cetera.

However, functional design doesn't mean objects are devoid of aesthetics. It's no coincidence a Helghan vehicle looks aggressive. Firmly rooted in twentieth-century military hardware from Nazi-era Germany or the Soviet Union at its Cold War pinnacle, these vehicles are designed to impress. The same is true for the animalistic shapes of some other vehicles, like bat silhouettes that transform into drones or four-legged walker mechs. These designs deliberately trigger the subconscious, playing upon our collective cultural memory that links bats to scary things.



'Industrial design has always been our strong point, I feel. Everything we design is functional. Designing vehicles, we want to get them right. No game-y designs, but something that simply works.'

Roy Postma | Art Director

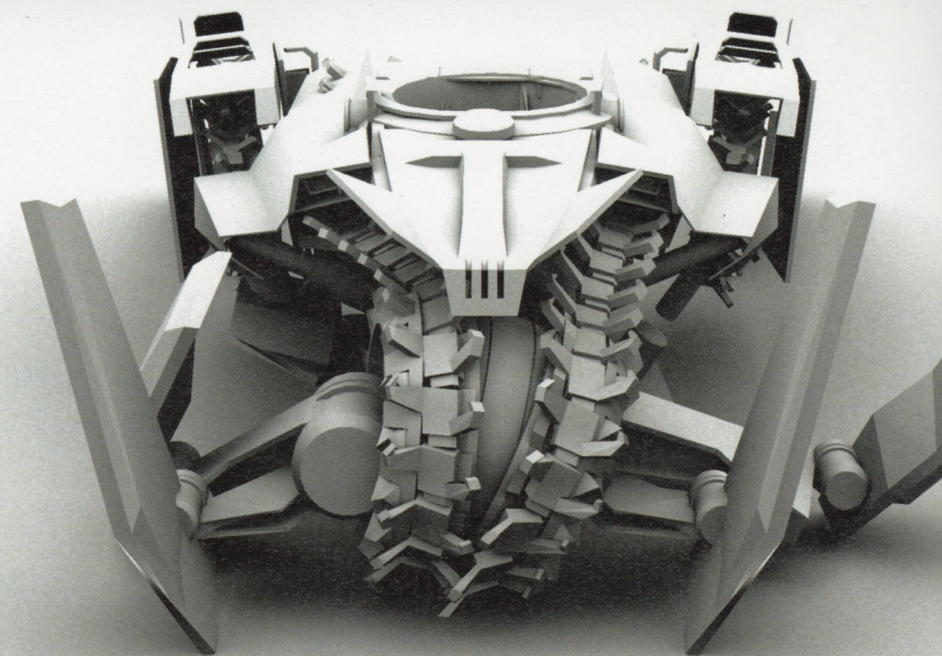




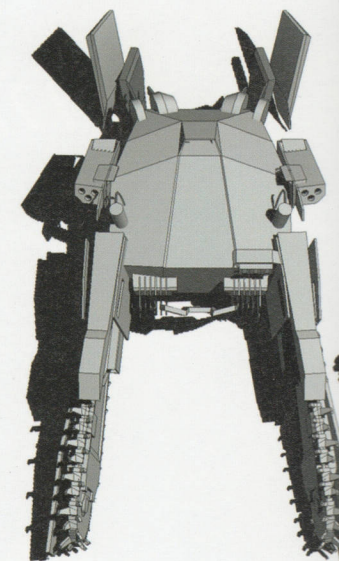
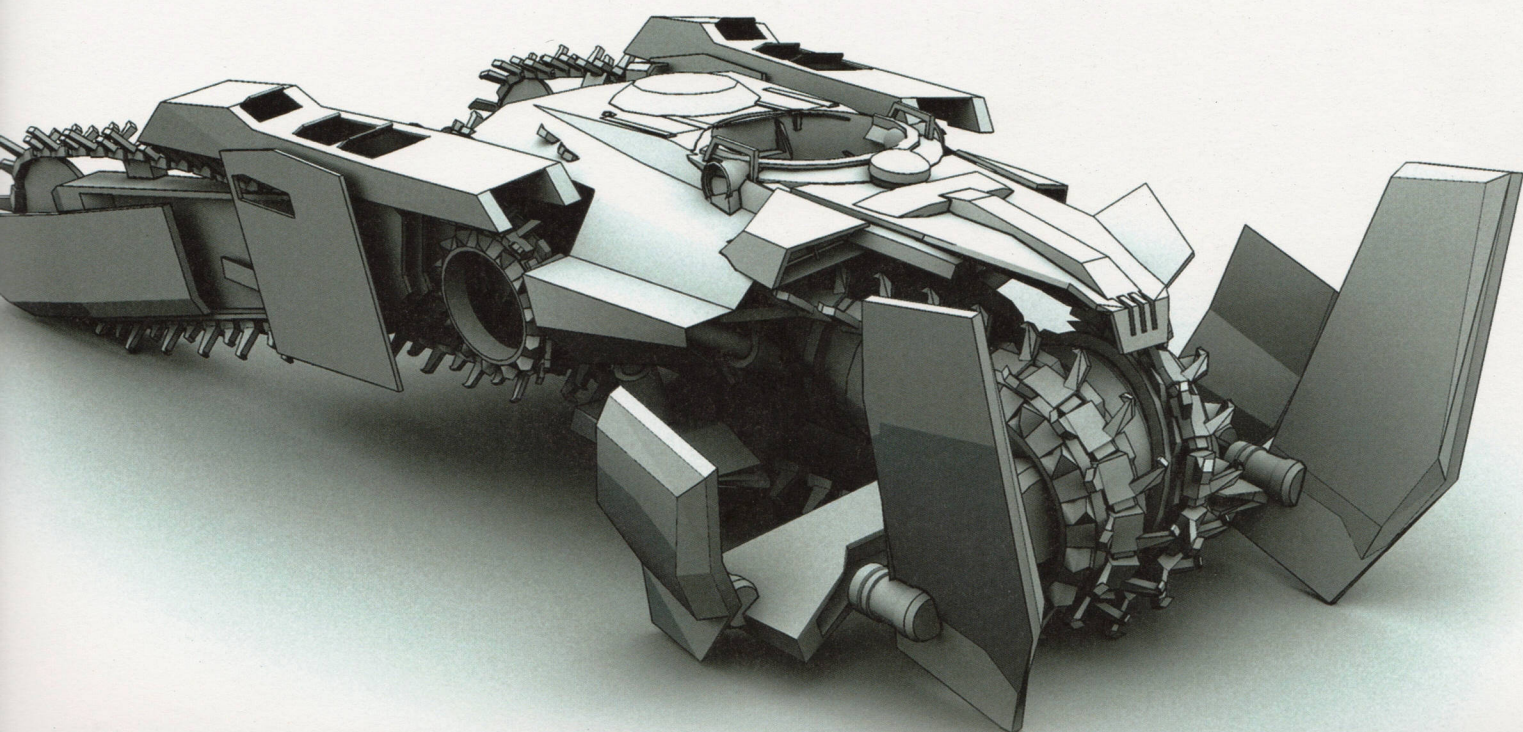
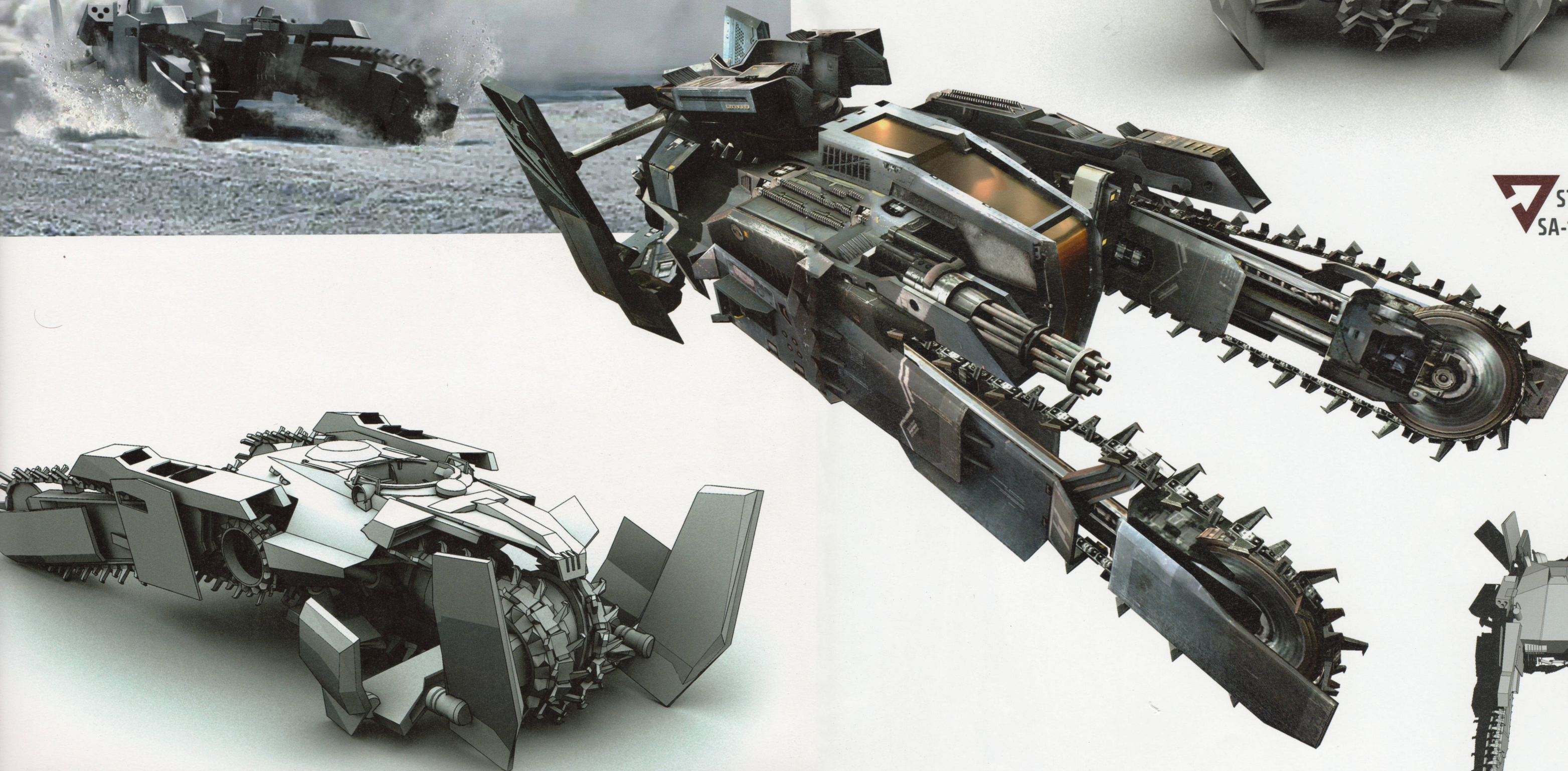
'From a certain point in time, the Killzone world itself would be our prime source of inspiration for new designs. I remember Jan-Bart [van Beek] wanted a Helghast boat with life rafts, and I flat-out told him no, this wouldn't sit well with Helghast: if you have room at the side of a ship, you'd hang a tank from it or something.'

'A little while later, the same thing happened to me. I designed a sleek ice sailer with sharp skates as escape craft for Killzone 3, but Jan-Bart said something like: sailing, the Helghast, really? So I designed a hellish tricycle with thick metal plates. Because, of course, he was right: Helghast don't sail. Nor skate, for that matter.'

Roland IJzermans | Lead Visual Designer



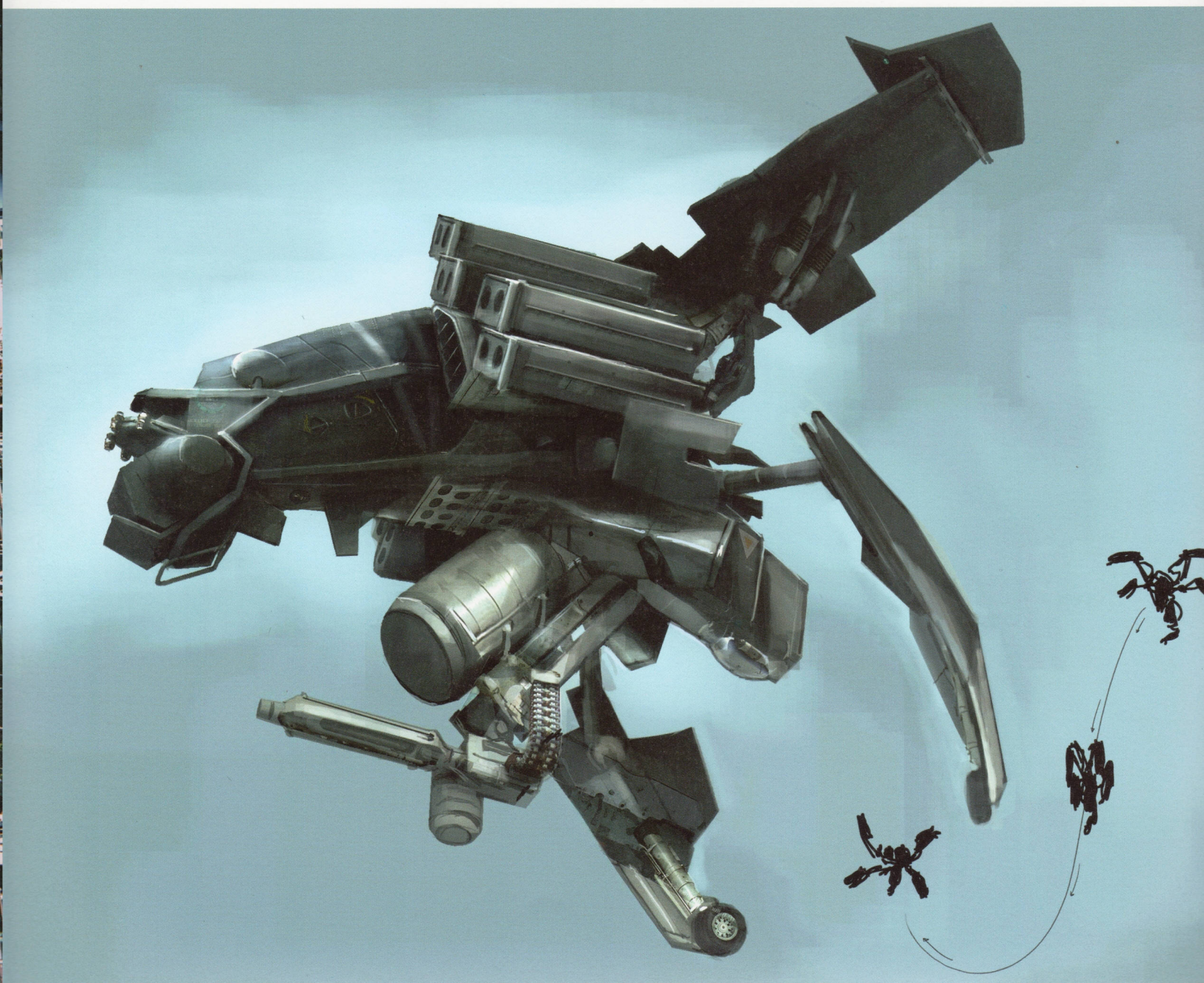
 **STAHLA**
SA-108 ICE



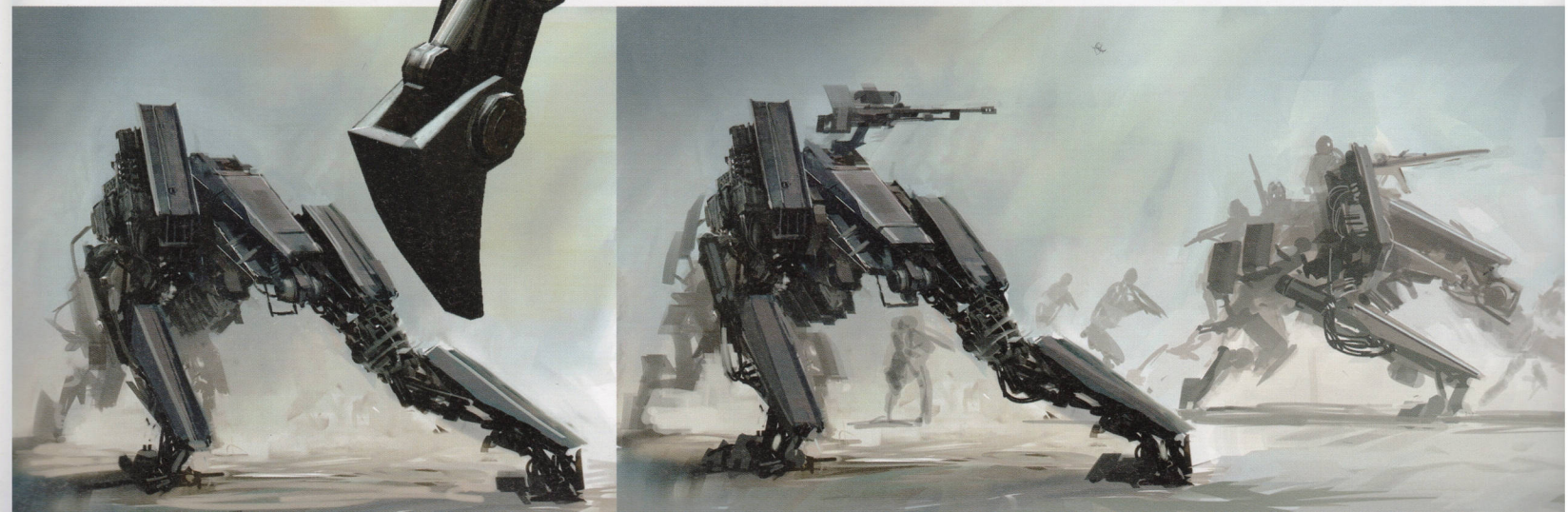
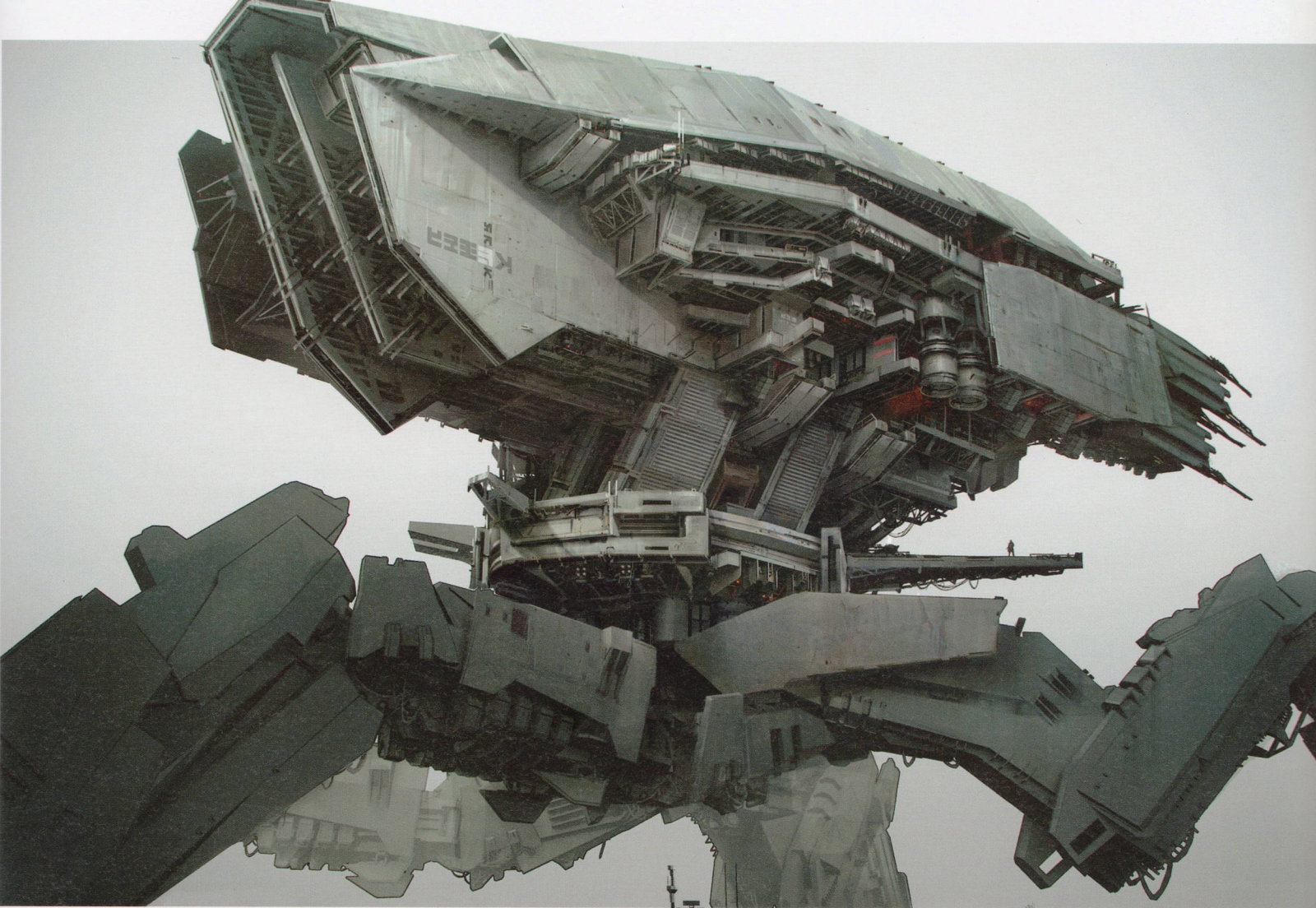


'The challenge with the ATAC was to design a flying machine armored like a tank but agile like a helicopter. To make it look aggressive, I gave it the body of a wasp, with a gun as the sting pointing forwards, the head as the sensors block, and the upper levitation wings as the unfolded wings of a bat. At the same time, we made sure the design made sense mechanically. It has wheels at the tips of the wings and one on the back, for instance. It never lands in the games - I mean, literally - but the design shows it could do a tricycle landing.'

Miguel Angel Martinez | Principal Visual Designer

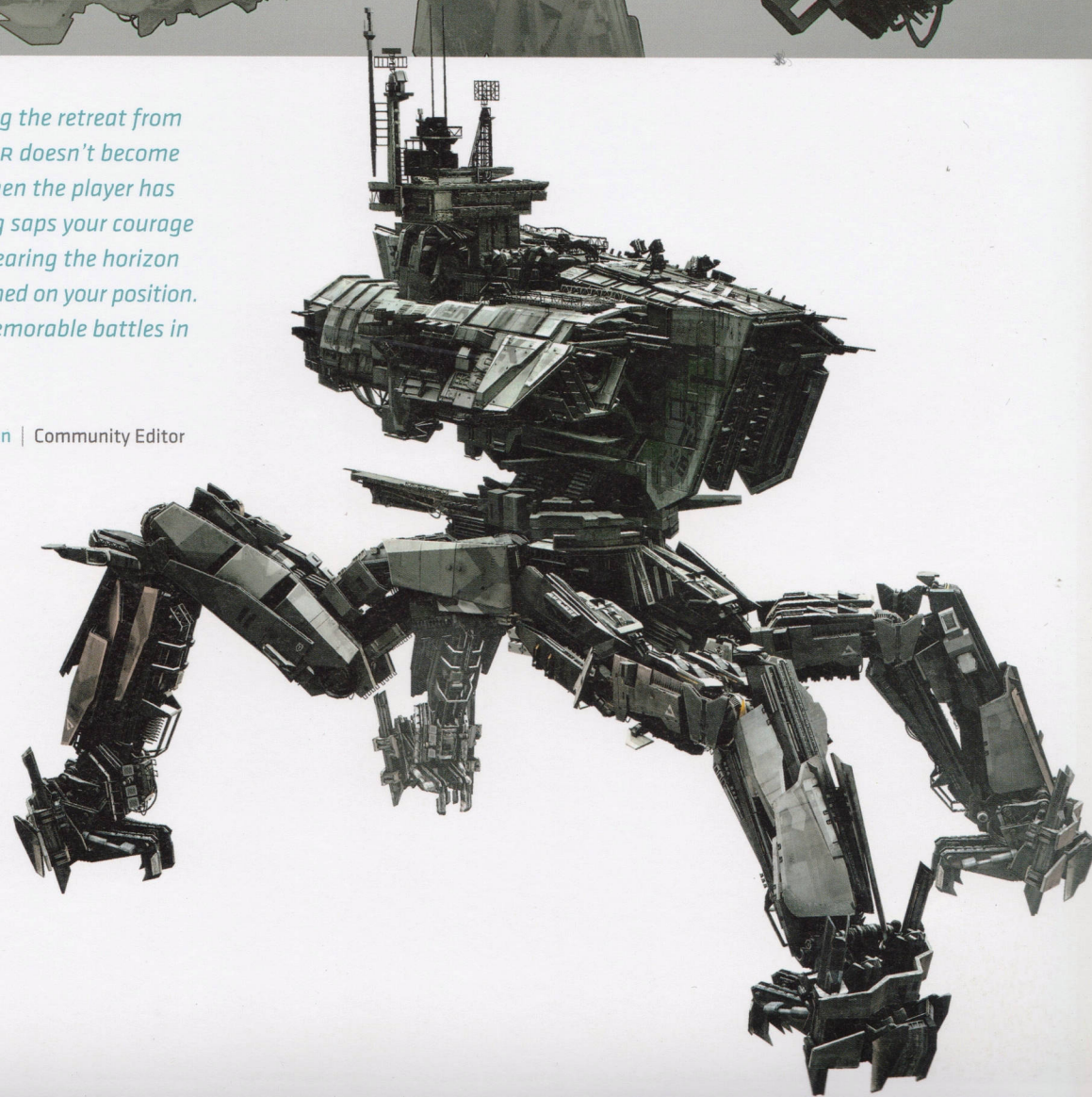


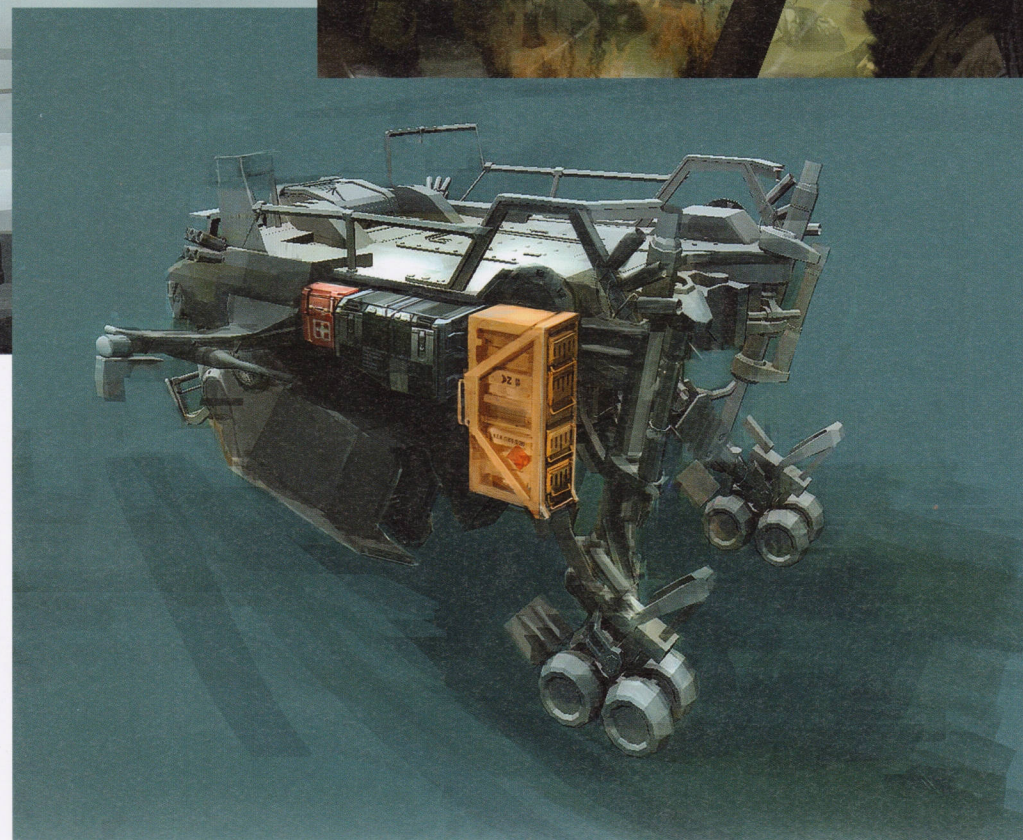
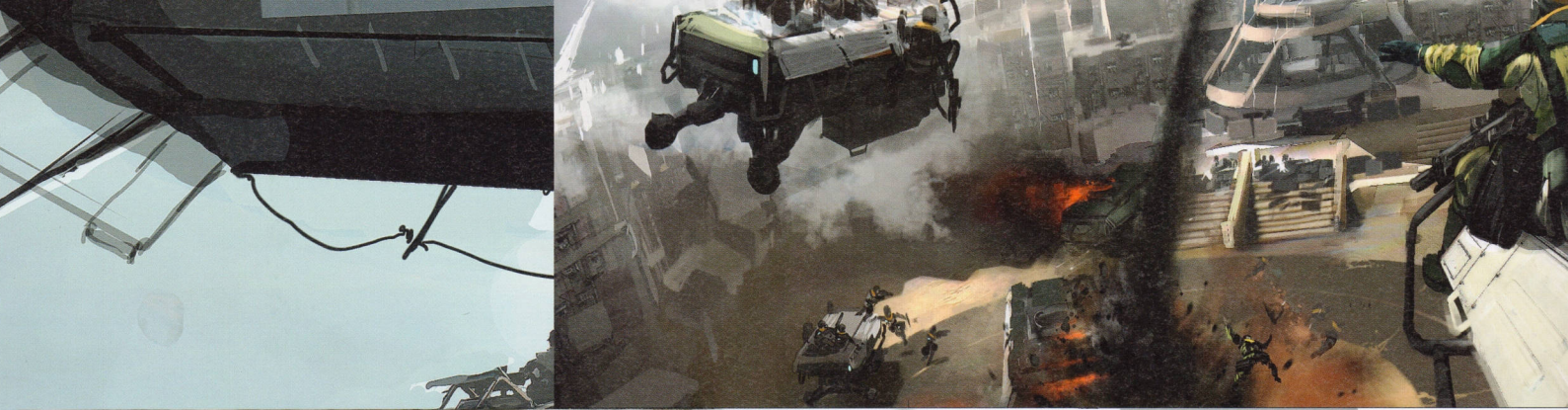




'First glimpsed from a distance during the retreat from Helghan, the true scale of the MAWLR doesn't become apparent until later in Killzone 3, when the player has to defeat one from up close. Nothing saps your courage quicker than a walking battleship clearing the horizon in a single step, its entire arsenal trained on your position. It easily ranks as one of the most memorable battles in the entire Killzone series for me.'

Victor Zuylen | Community Editor



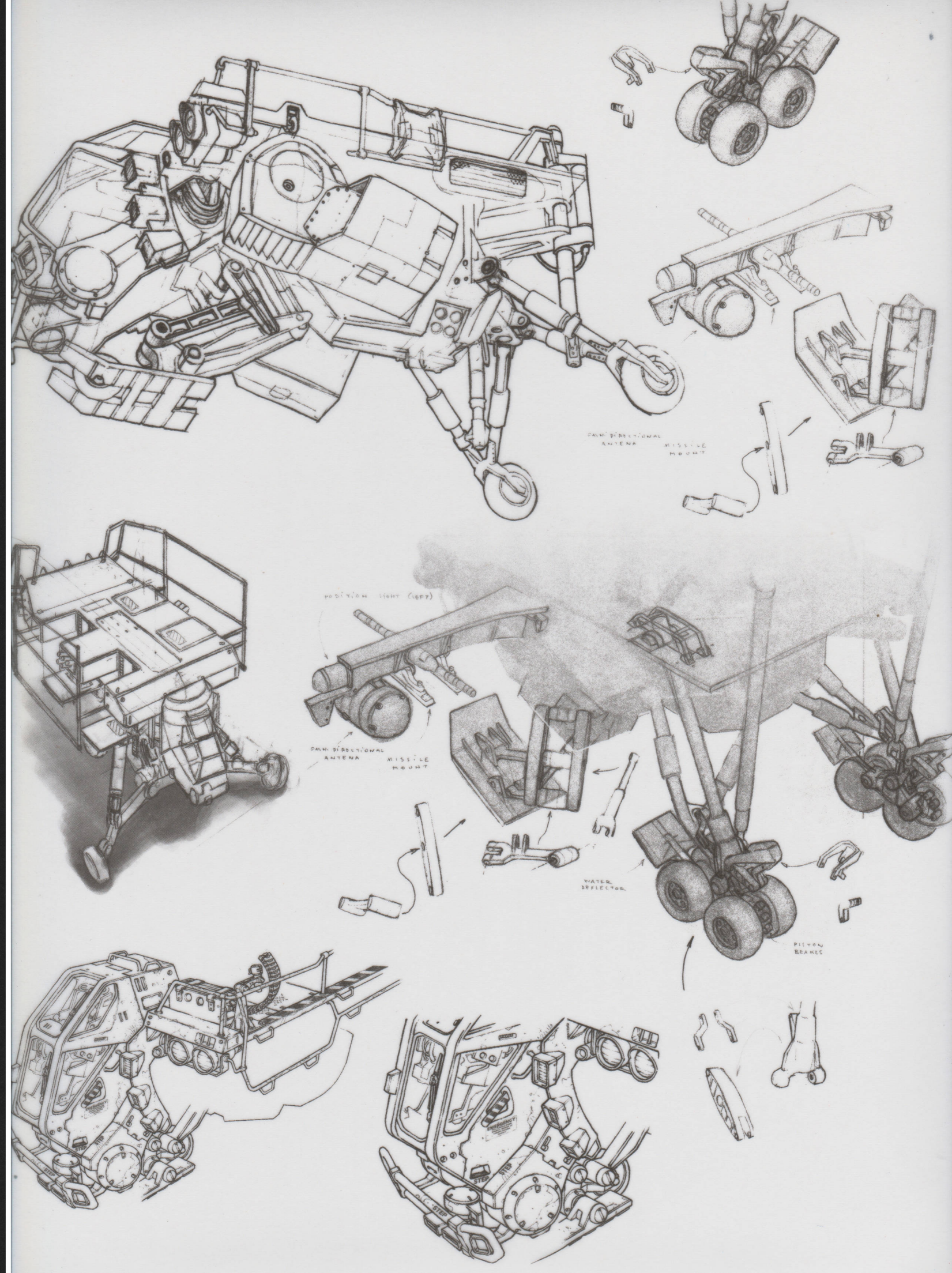


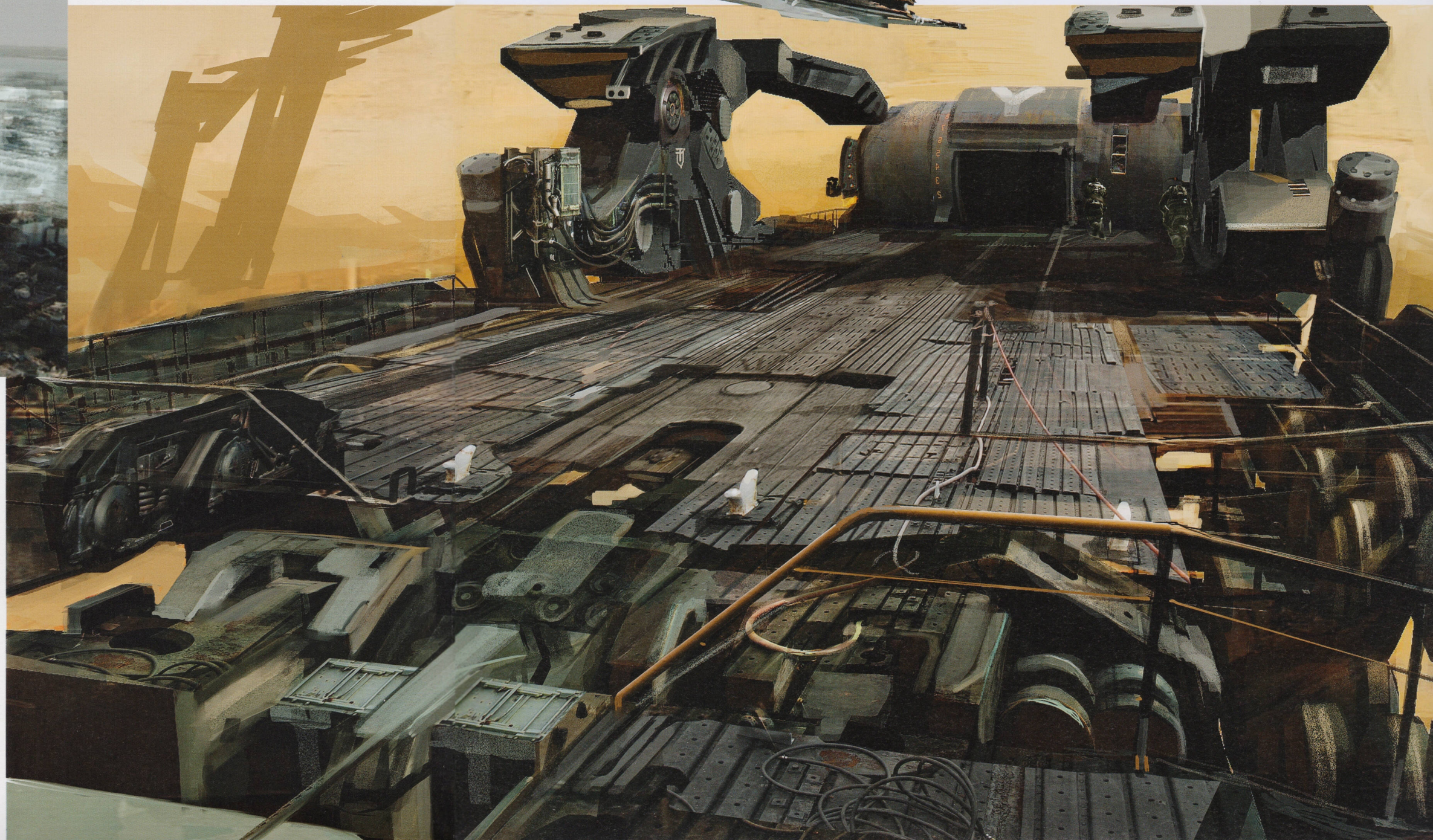
'The Intruder was designed as a practical trooper launch platform, very functional. The design looks simple, but we spent countless hours on getting the vehicle right. How would propulsion work, for instance? You probably miss it when you're in the game, but there's a small, very efficient thruster design on board, which makes the Intruder a combination of a Harrier jet plane, a flatbed trooper transport you've seen in war movies a million times, and a flying bedstead.'

KILLZONE

BY KBG GUIDES VISUAL DESIGN

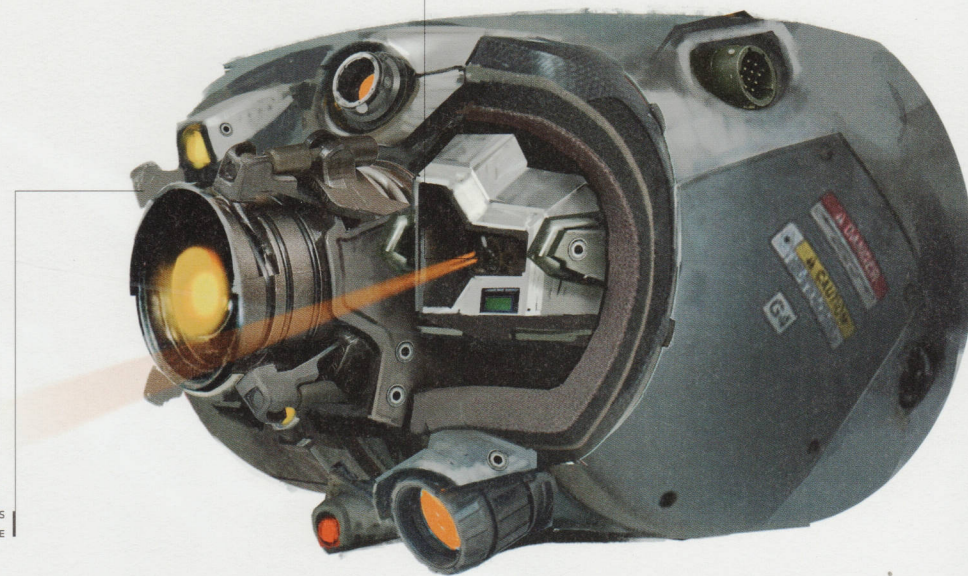
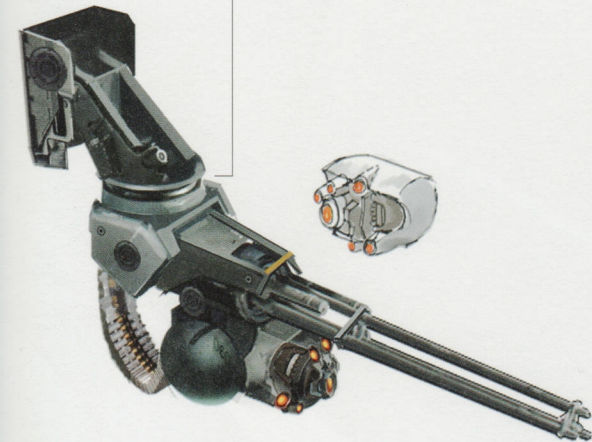
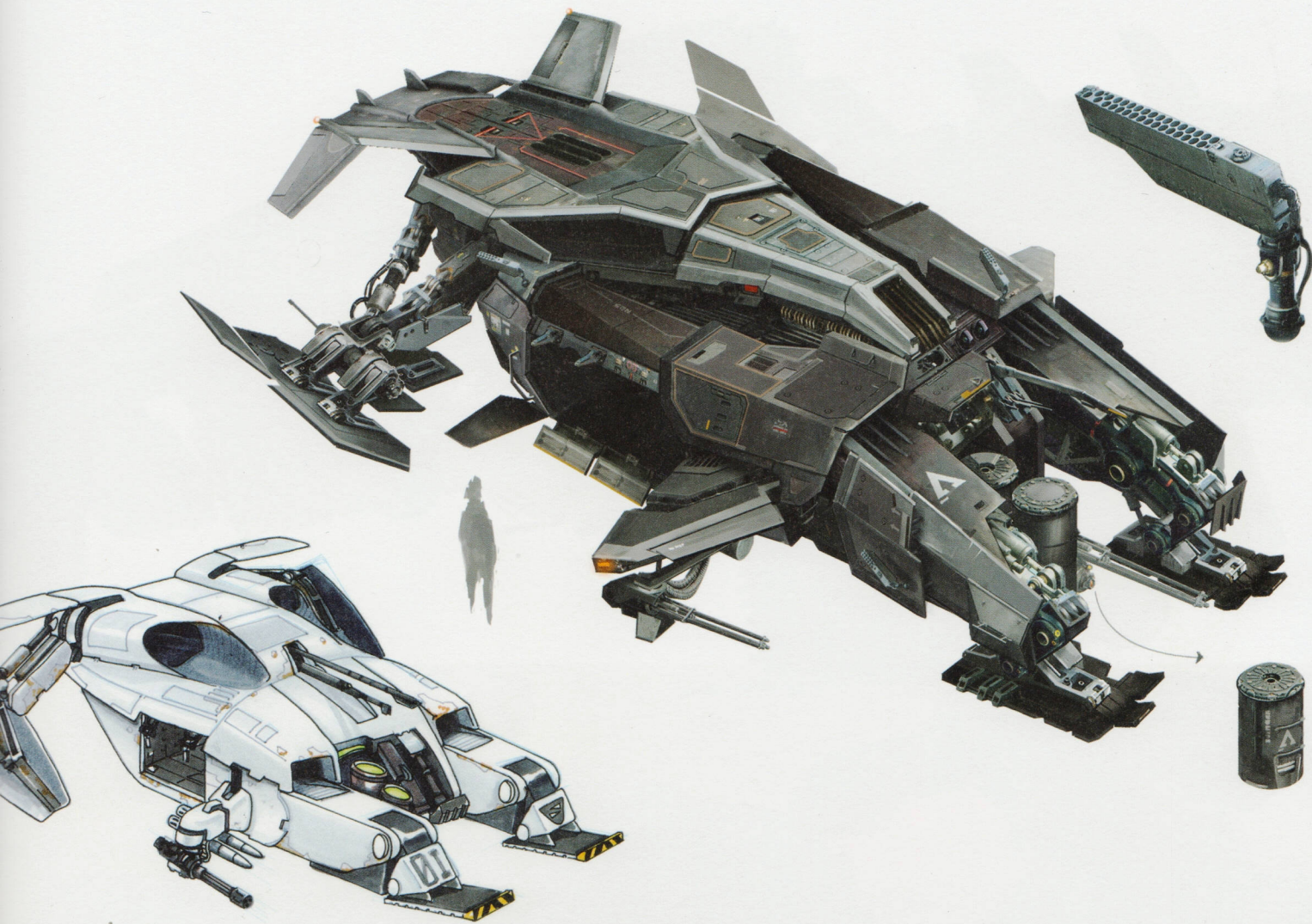
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'Helghan vehicles almost never look like their earth counterparts.'

- Bulky, angular, sober designs with hardly any purely decorative elements.
- Functionality is immediately clear. There are very little 'mystery boxes.'
- Designs look unsafe to our standards. Exposed heating elements, exposed wiring, exposed mechanical parts.
- Props are often old and have been patched up numerous times with cheap materials, such as tape or rope. Rusty parts get painted over. Missing panels get replaced by plywood or cardboard.
- Paints and plastics come mostly in dull, easy-to-produce colors, such as off-white, gray, brown and black. The exact tones are almost never consistent; different panels that have been made on different days may very well vary quite a lot.'



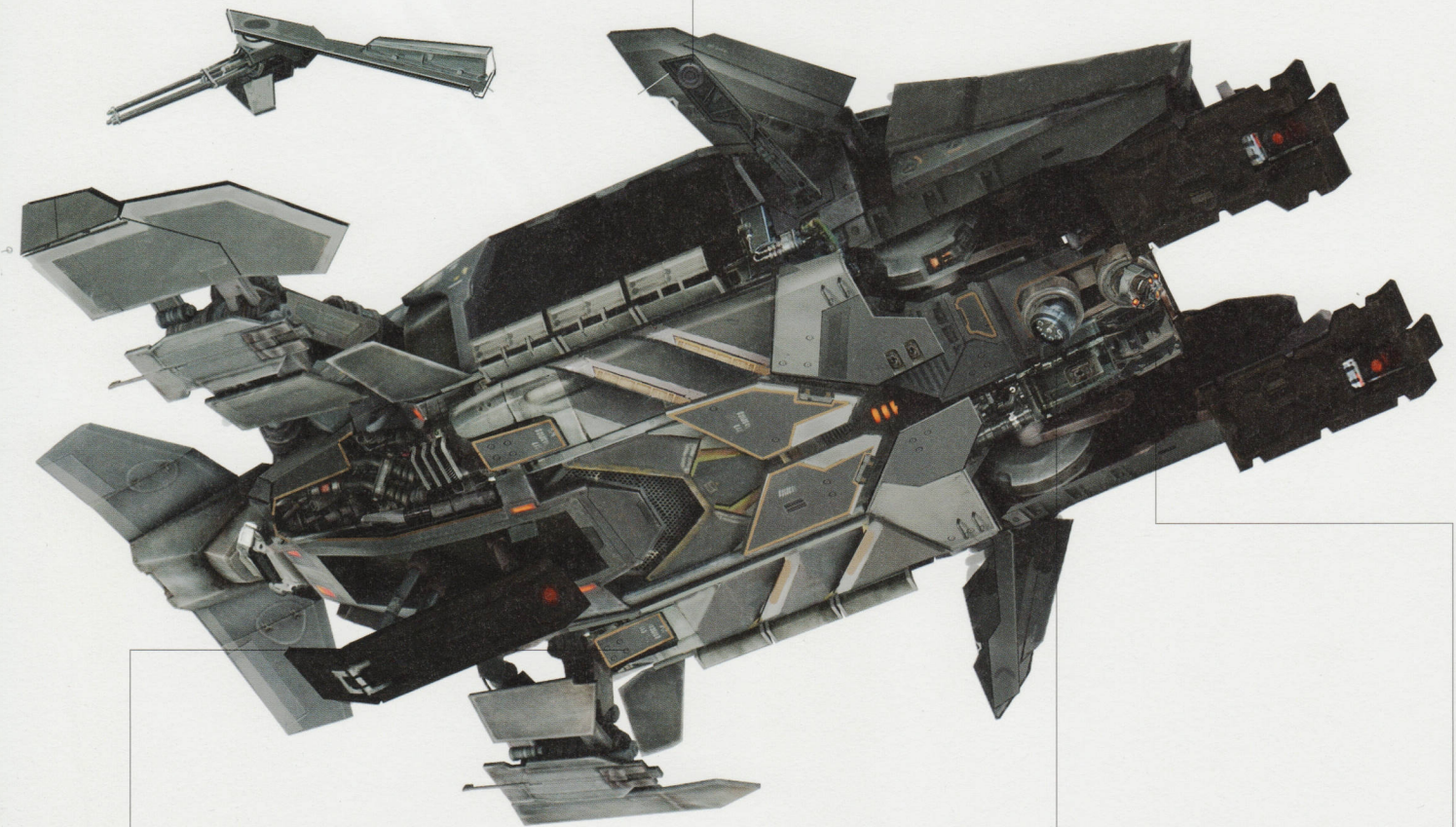
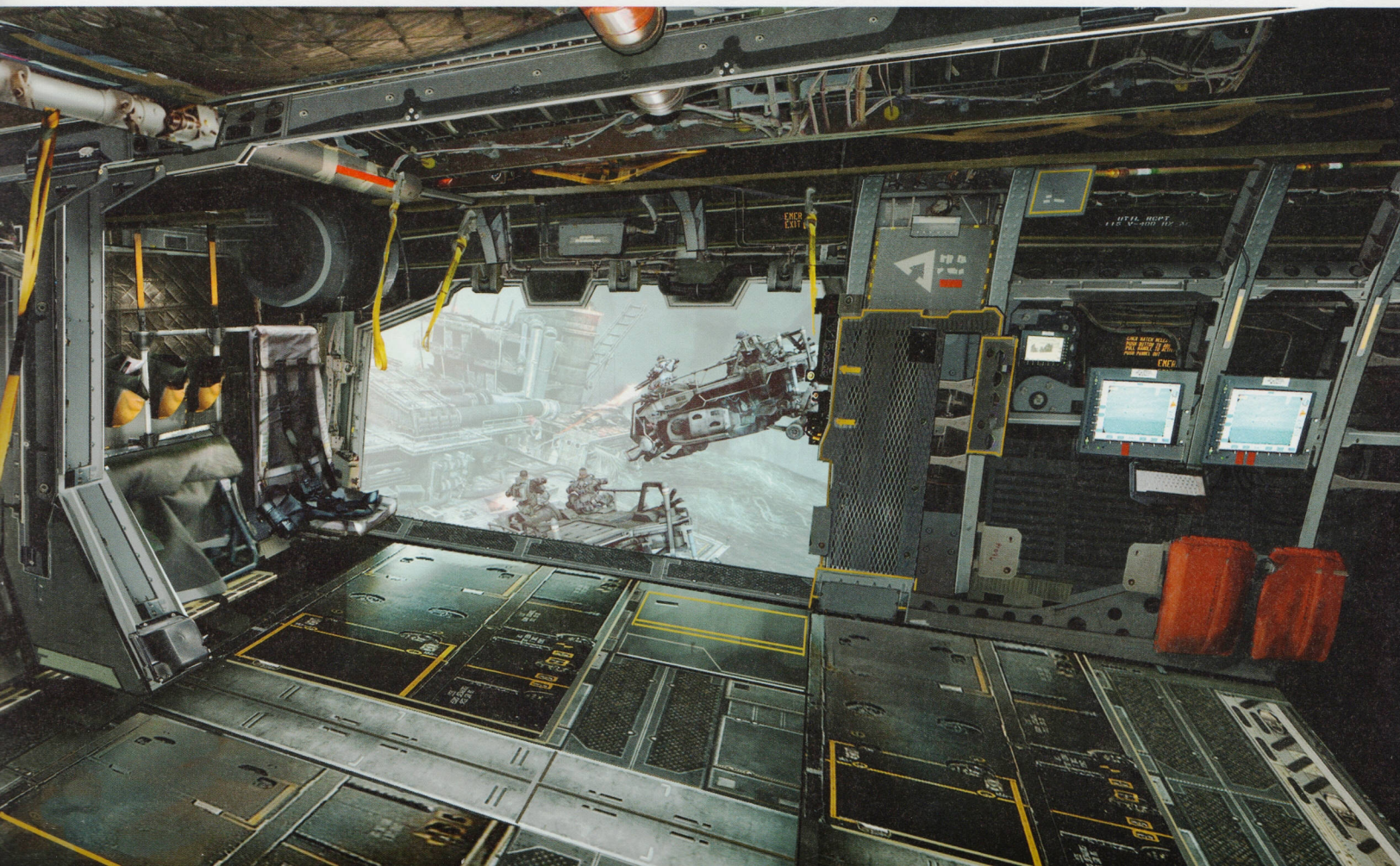
MAGNETIC PAD
ATTACHES TO THE SHIP AND
CAN SLIDE UP AND DOWN TO
BE ABLE TO GET TO THE
SHIPS' BOTTOM AND BACK

SMALL HYDRAULIC PISTONS
EXTEND THE EYE

ROTATES 360 DEGREES

SCANS WITH LASER BEAM
ONLY ON THE Y AXIS.
CONSTANT UP/DOWN
MOVEMENT

SENSOR HEAD FOR DROPSHIP



FLAPS

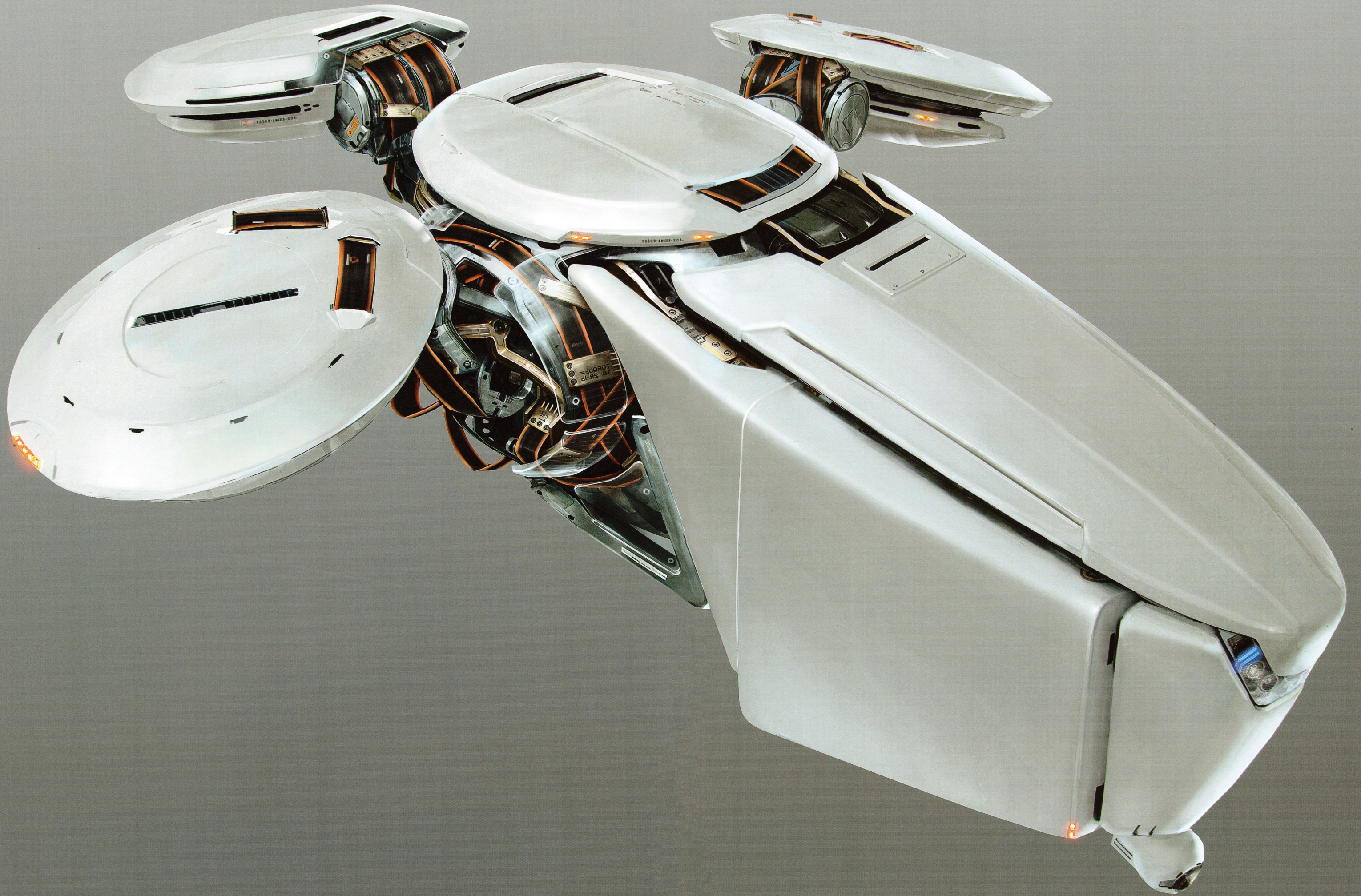
ROTATING
SEARCHLIGHT

TURRET SLIDES
DOWN THERE

SUPPORT BEAM UNDER THE WING
50 CM DISTANCE BETWEEN THEM



'Acting as the player's sidekick, the owl would hover in your view for a large portion of the time. It needed to look great from multiple angles, while being able to shoot ziplines, scan objects, generate shields, and act as a flying turret. We also wanted it to be able to fold into a small package that would fit on the character's back, while retaining the clean and simple aesthetic that fits the ISA faction.'



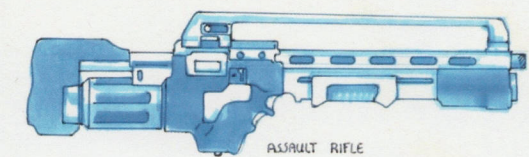


GUNS & AMMO

A weapon is a weapon is a weapon. Yet it would surprise *Killzone* players to learn how many design decisions it takes to arrive at a proper weapon design for a game. For instance, *Killzone*'s firearms 'feel heavy' when compared to those of other games. But what exactly does 'heavy' mean to a player who is only holding a plastic controller?

The answer lies in a combination of things. Designers give the guns the looks you expect from something of a certain weight, but that's just the start of things. The gun needs to look good in-game; players see their firearms from the left and from above, so designs need to accommodate that. Hovering in front of the player, the weapons need the right amount of 'gun bobbing' in animations that respond to the player's movement. Other animations support the idea of a real gun, just as audio elements do: a 'reload animation' is nowhere without metal-on-metal sounds. Last, but not least, 'impact models' of the surrounding area communicate the effect of your shots: heavy guns do heavy damage. Combined, this makes for a theater of illusions in which you believe your gun has weight and impact, without tiring your arms.

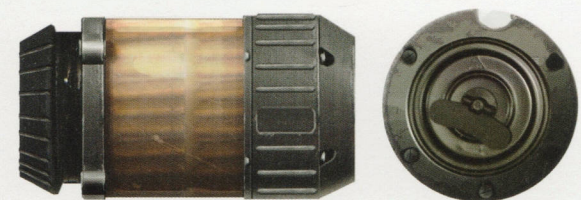


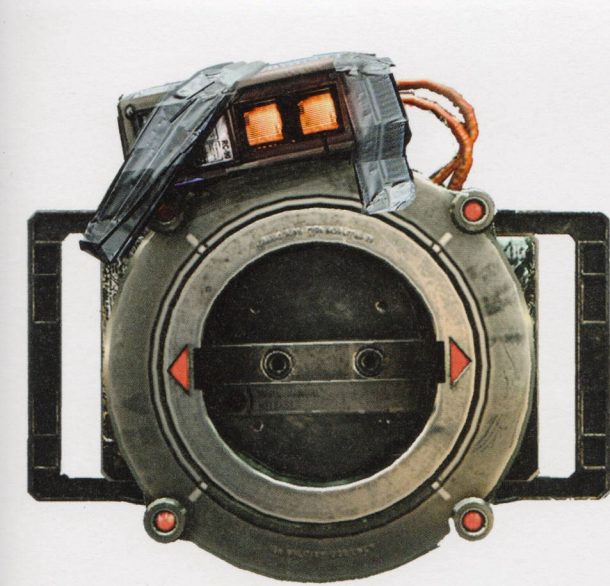


'Helghast weapons aren't designed for the weak. They are heavy and cumbersome, not lightweight and comfortable. Ergonomics are not important to Helghan weapon designers. It's all about brute force.'

There are no high-tech materials to make weapons more lightweight, comfortable, or more durable. They are made of hard, dark steel that is intended to outlast the man holding it.'

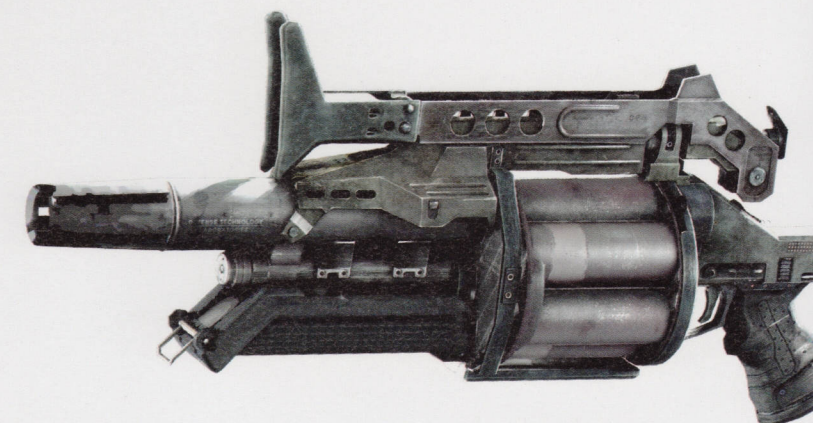
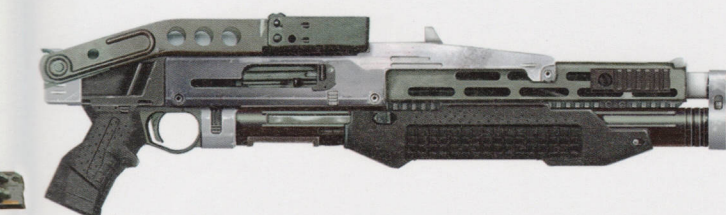
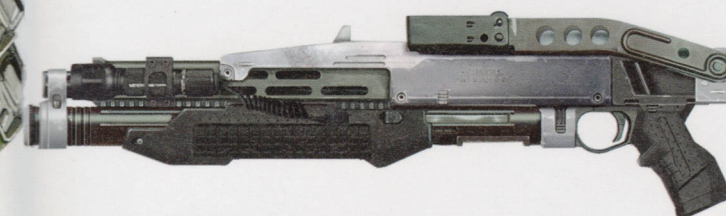
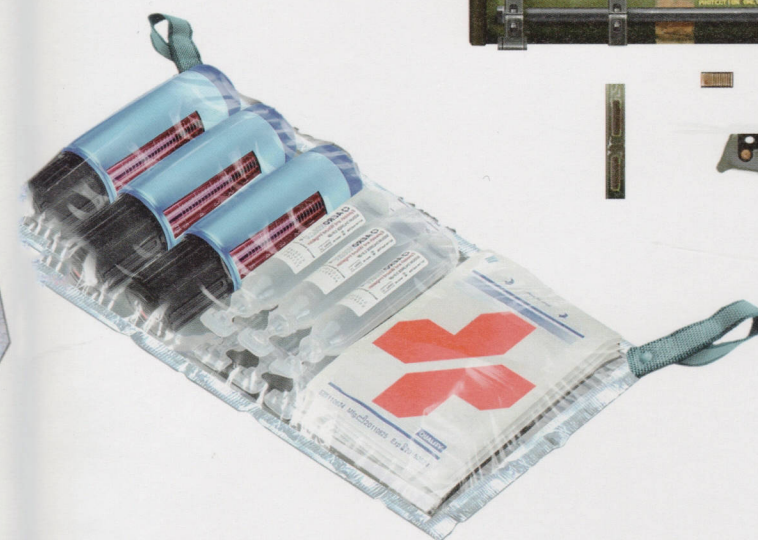
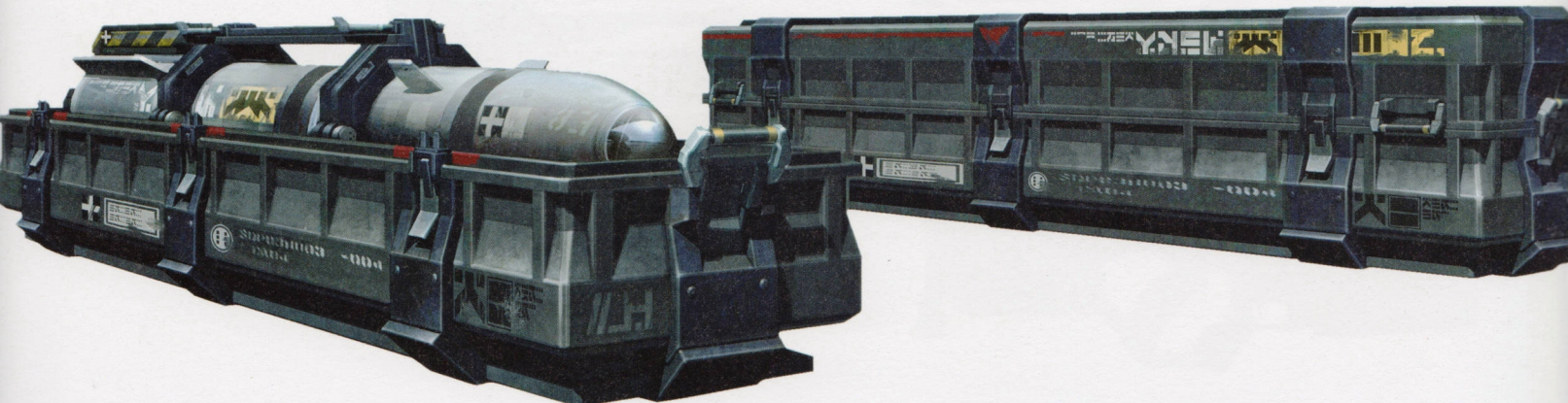
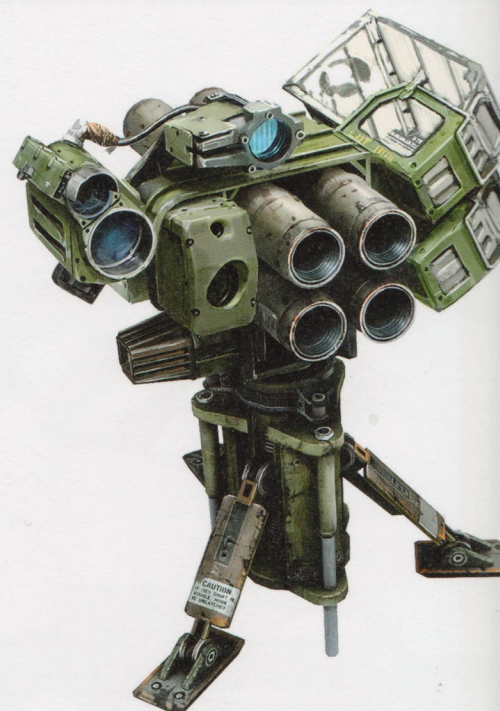
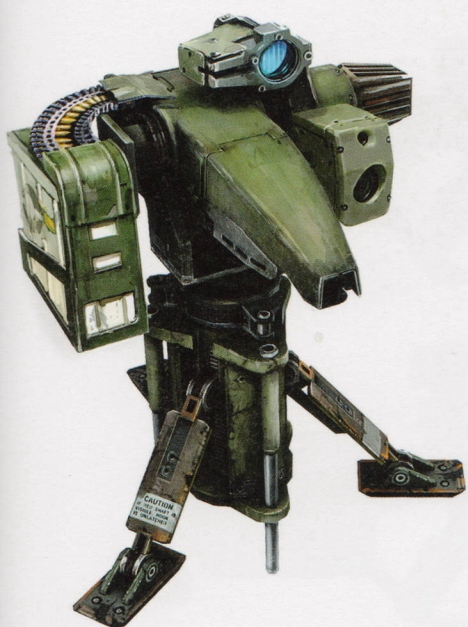
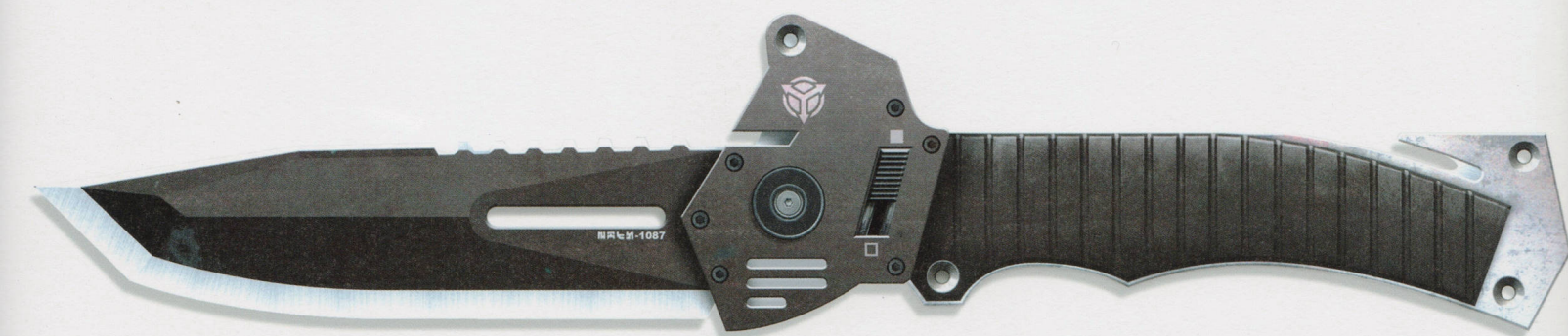
Internal Document | Weapon Design Guidelines for Helghast Weapons





'When it comes to weapon design, the Internet is our prime source for information. So we are on the web a lot, and have been for over a decade; I'm pretty sure we're on all kinds of NSA and FBI lists for web-searching atomic bombs and military hardware all the time.'

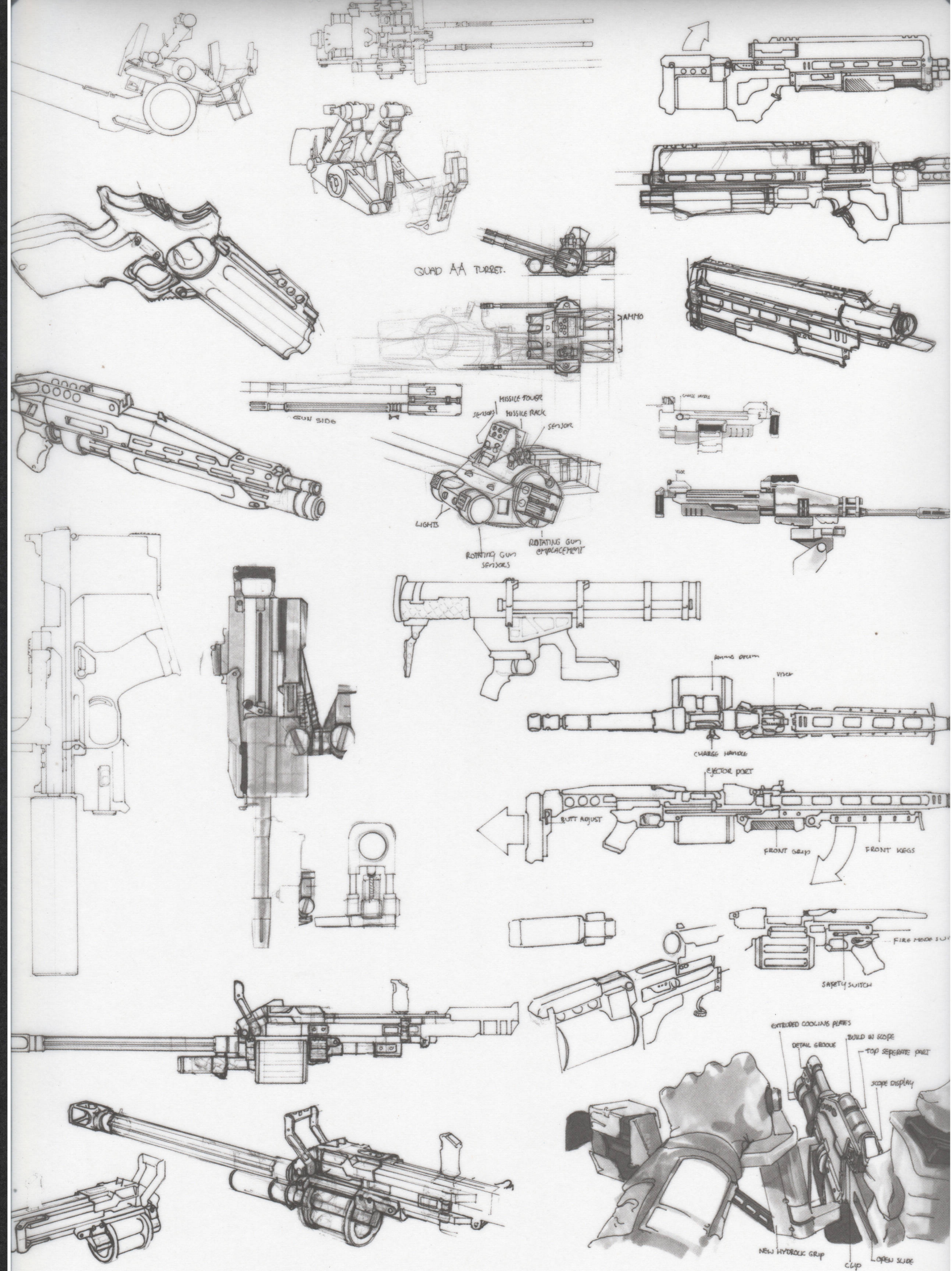
Roy Postma | Art Director



KILLZONE

BY KBG GUIDES VISUAL DESIGN

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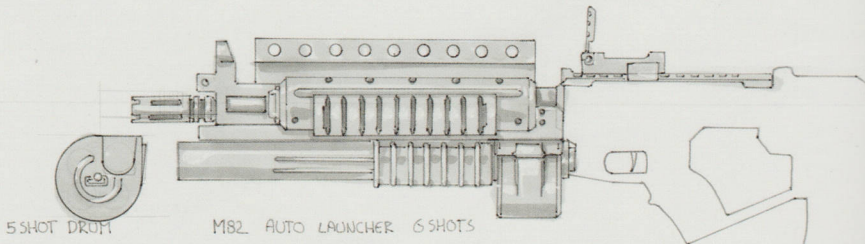
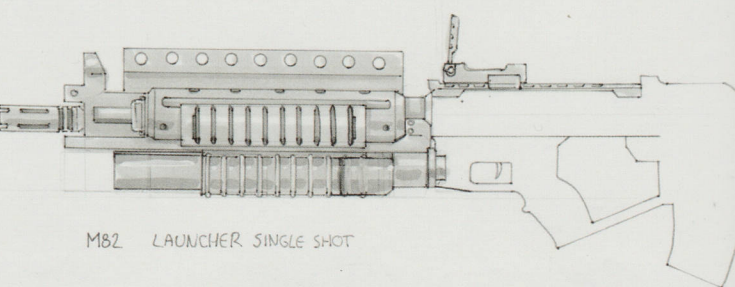
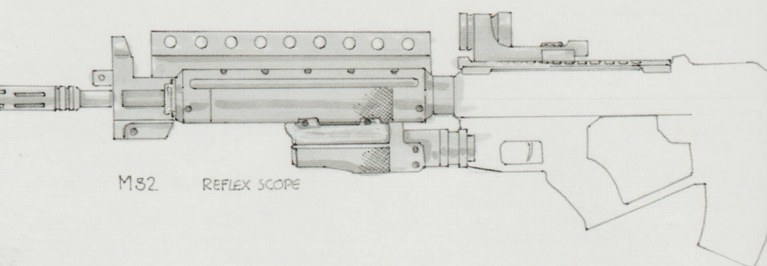
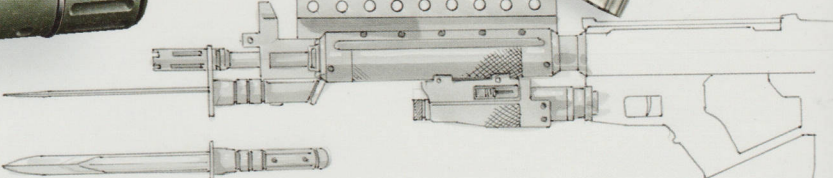
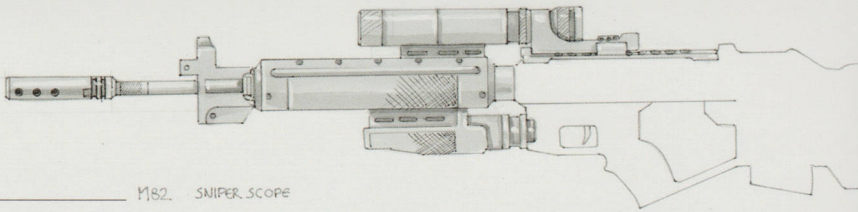


'The core of the Killzone IP is 'World War 2 in Space.' The gun design should hint at this as well. The designs should always be grounded in a sense of history; they should feel a bit retro and never move over into futurism. Many of the weapons use many elements from weapons of the last century.'

Internal Document | Weapon Design Guidelines

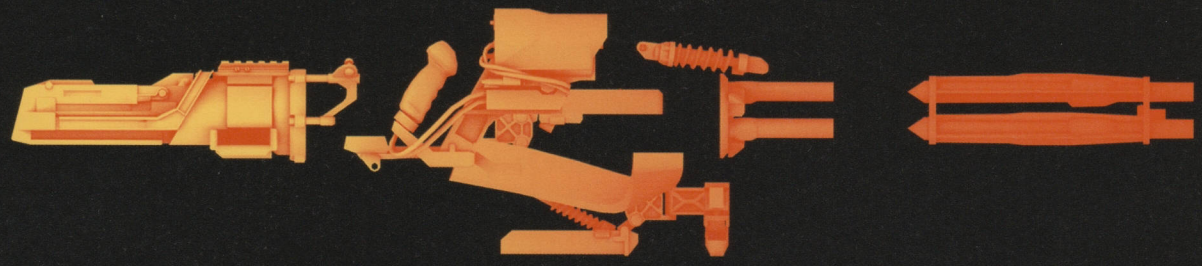
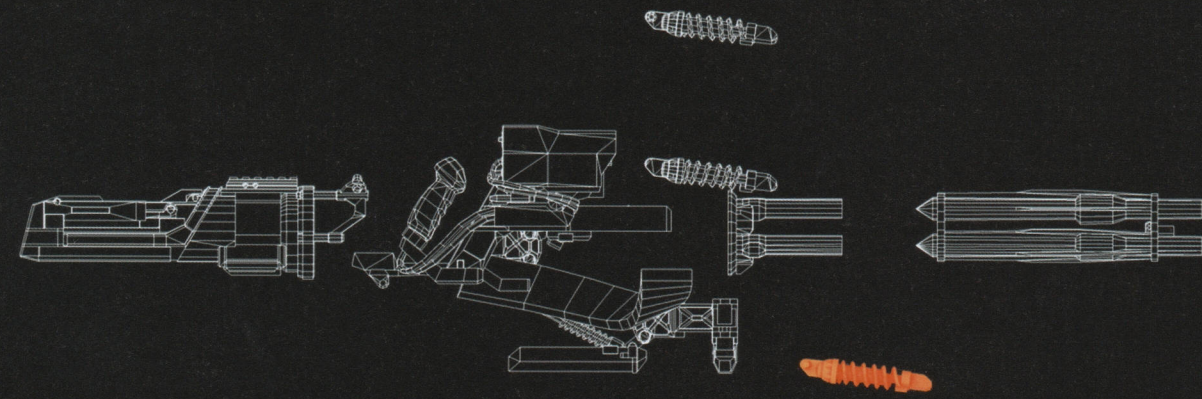
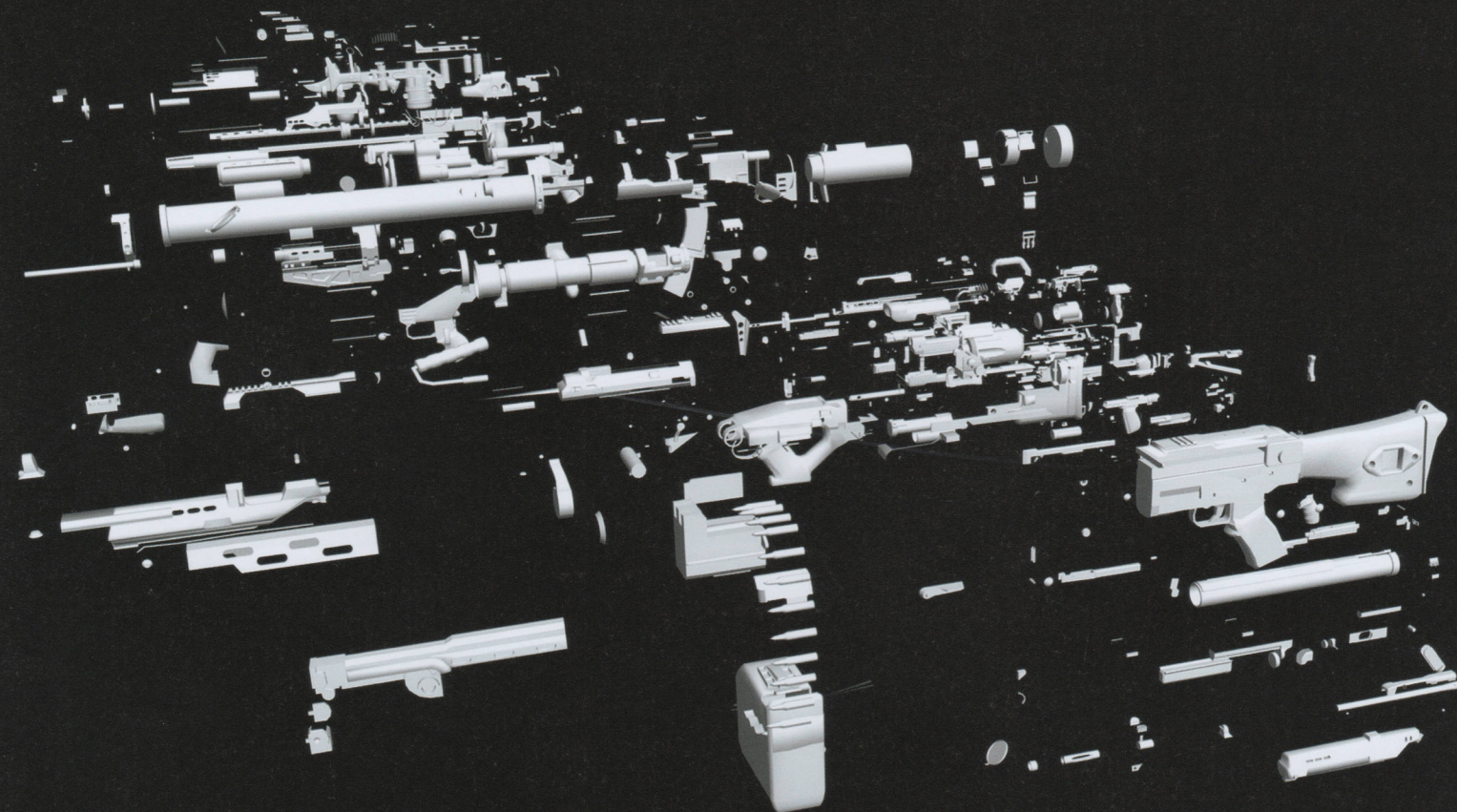


- ISA WEAPONS
- EXPENSIVE
 - LIGHT
 - ACCURATE
 - HIGH TECH COMPOSITE MATERIALS
 - ERGONOMIC
 - GREEN & BLACK





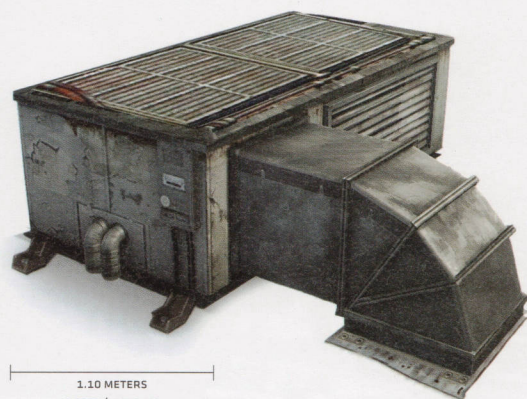
					
					
					
					
					
					
					
					
					
					
					
	BLUED STEEL		MOLDED POLYMER		FIBER GLASS EPOXY
	PARKERIZED STEEL SMOOTH		CERAMIC COATED STEEL FINE		MOLDED POLYMER ROUGH
	PARKERIZED STEEL GNC TEXTURE SMOOTH		CERAMIC COATED STEEL ROUGH		
	PARKERIZED STEEL ROUGH		RUBBER		





2.20 METERS
6 FEET / 8 INCHES

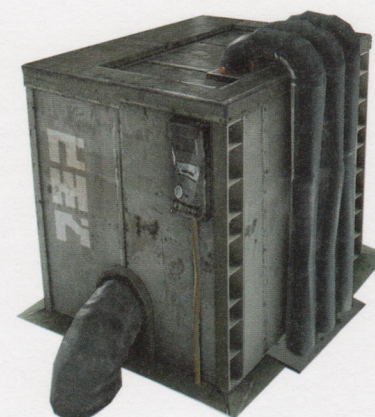
1.10 METERS
3 FEET / 4 INCHES



1.10 METERS
3 FEET / 4 INCHES

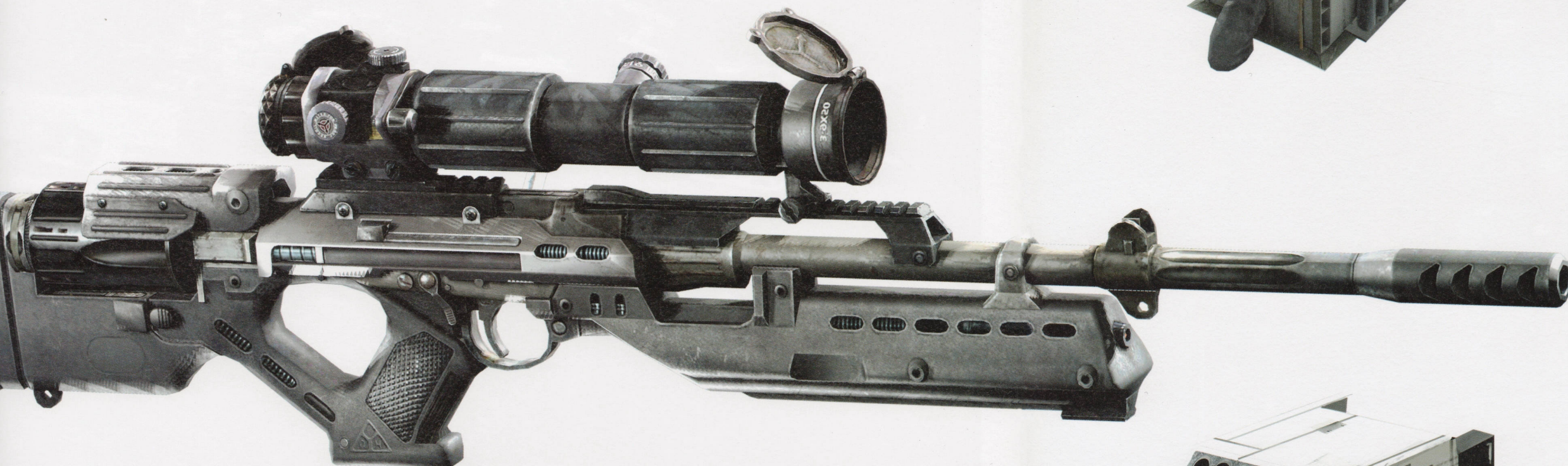
COVER OPTIONS

1.10 METERS
3 FEET / 4 INCHES
HALF COVER
IN BATTLE



COVER OPTIONS

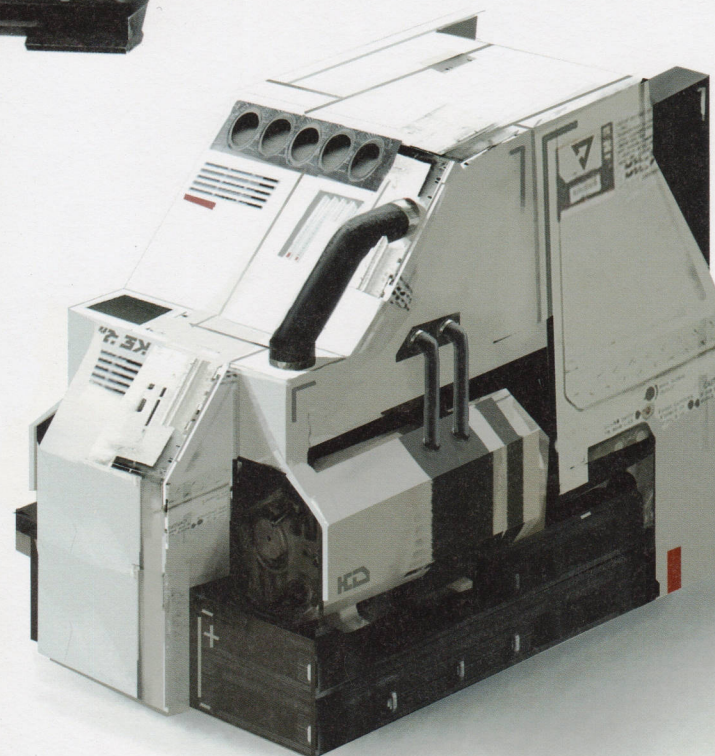
2.00 METERS
6 FEET
FULL COVER
IN BATTLE



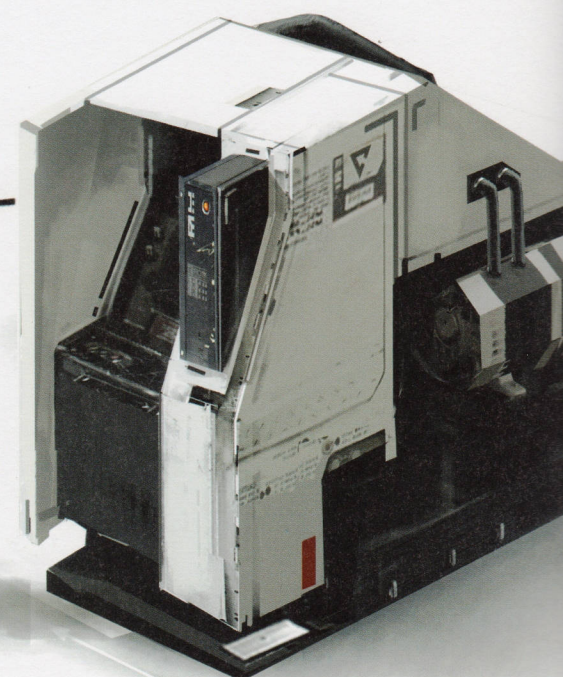
COVER OPTIONS

2.00 METERS
6 FEET
FULL COVER
ATTLE

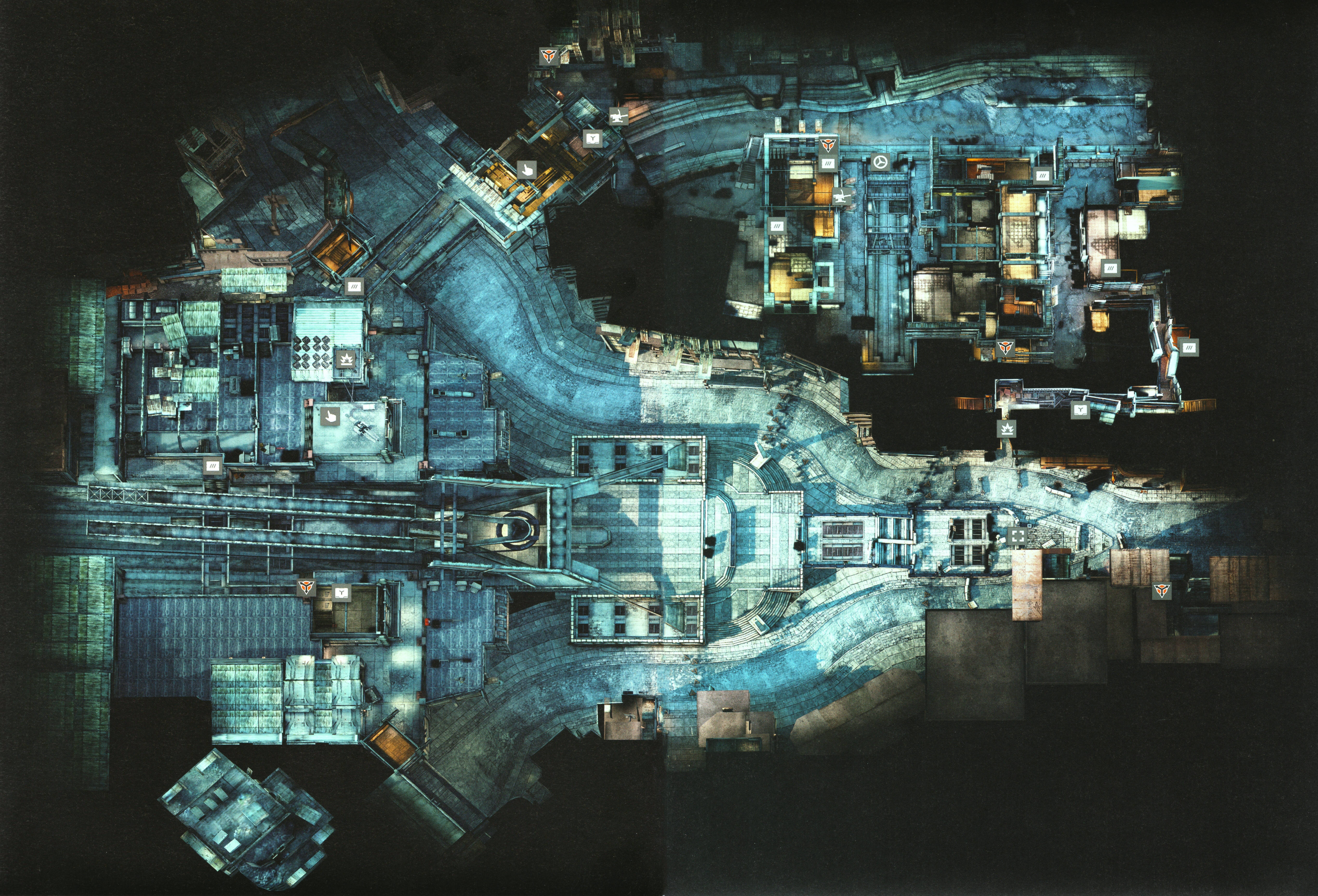
'Part of the fun in using Killzone's weapons stems from the tactical use of cover. To this end, game designers would place grey boxes representing 'cover objects' in the level for the player to take cover behind during firefights. The boxes came in two heights: 2m20, which provided full cover, and 1m10, which required the player to crouch to stay in cover. The visual design team was responsible for designing realistic objects that could replace the boxes. The challenge for us was fourfold: the objects had to confirm to the measurements of the grey boxes, to present consistent cover heights to the player; they had to make sense within the context of the environment; they had to look like to could actually withstand gunfire; and they had to include variations, so as not to appear repetitive when placed in the level.'



1.10 METERS
3 FEET / 4 INCHES



2.20 METERS
6 FEET / 8 INCHES





WEIRD SCIENCE_

Killzone is science fiction, but without the little green men and pink plasma guns. Fantasy elements have no place in this universe, which revolves around an all-too-realistic war between humans on planets comparable to Earth, and with gear we recognize from our own time.

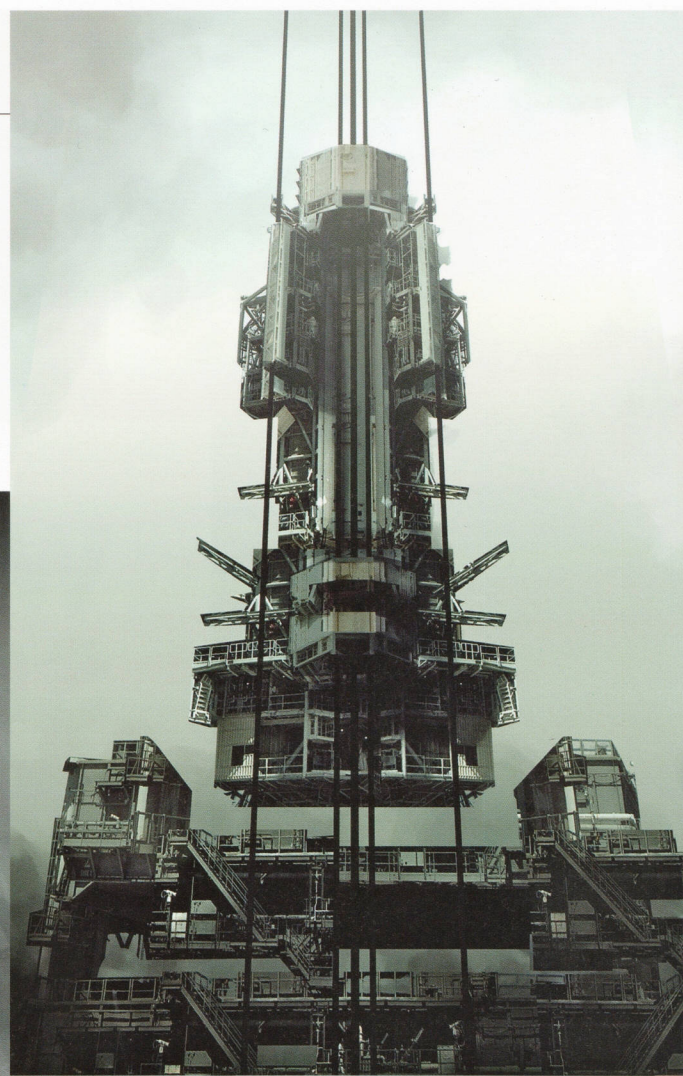
This does not preclude futuristic elements, of course. Low-orbit spaceships, space elevators, and interstellar container transport systems show how people and products are moved about. Fleets of delivery drones support the basic needs of civilians, at least on the ISA side, and bomber planes hang from walls in gigantic hangars.

These examples fill the realm of 'realistic speculation' that is all too common to science fiction – most of what a player sees is grounded in our understanding of life, physics, and technology. Guerrilla Games' big exception to the rule is petrusite, a 'powerful element made from a unique form of Higg Boson molecules only found on the planet Helghan,' as official *Killzone* guidelines explain. Why this exception? Petrusite is 'highly volatile and dangerous,' which makes for excellent gameplay opportunities.

SPACE ELEVATOR

POWERED BY A MASSIVE
PETRUSITE COIL

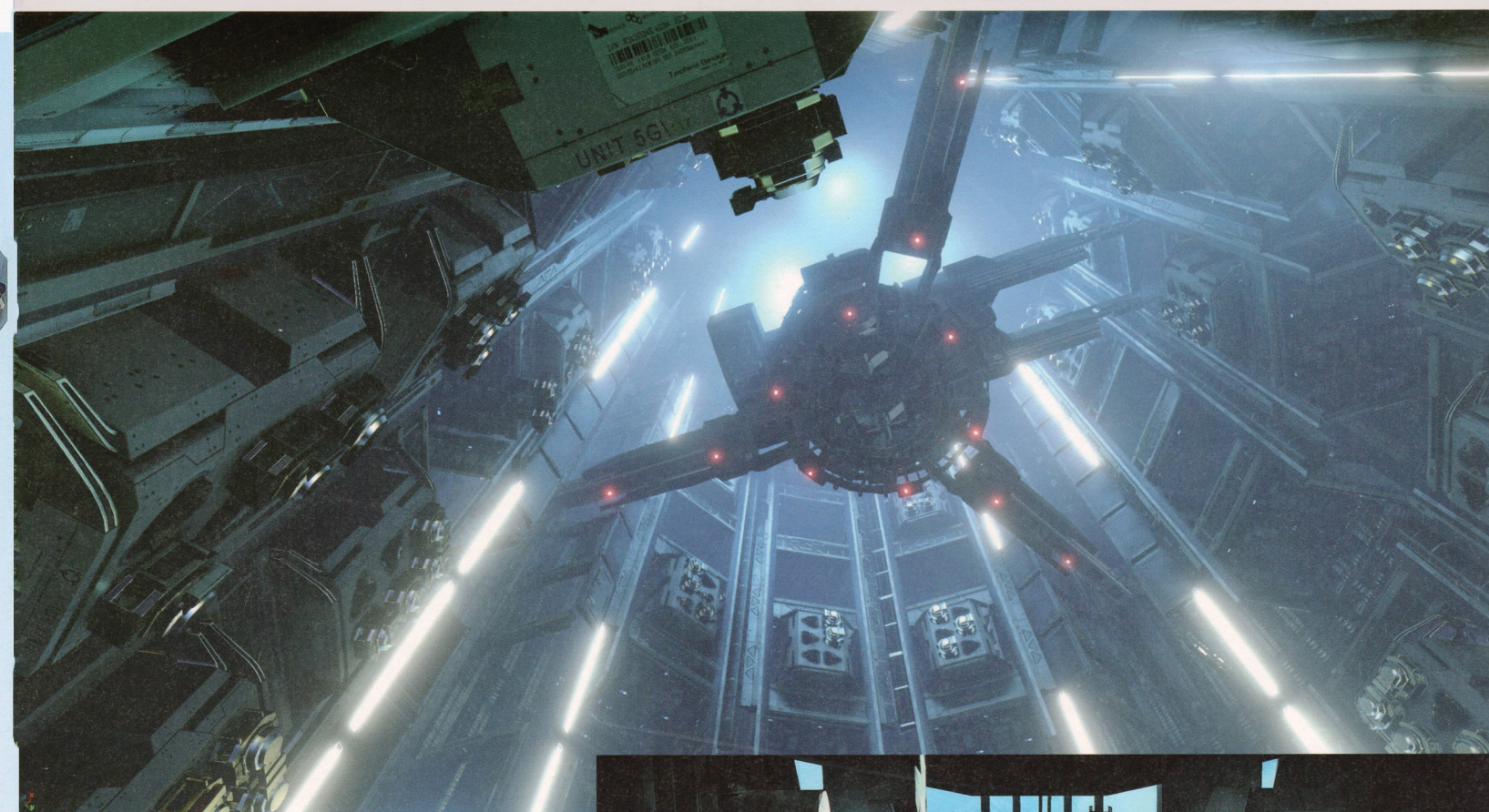
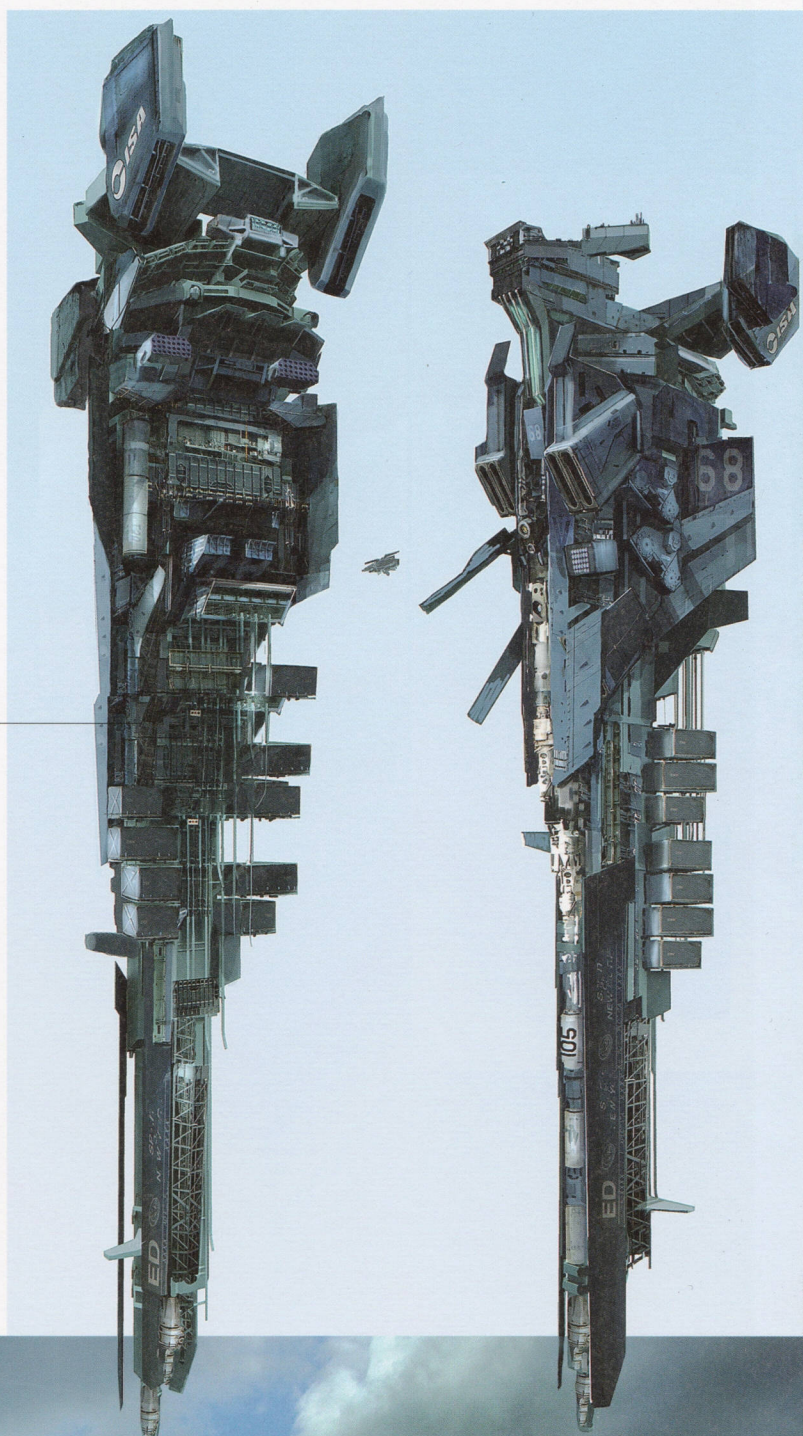
FERRIES PERSONNEL
AND EQUIPMENT BETWEEN
HELGHAN'S SURFACE AND
A GEOSYNCHRONOUS
SPACE STATION



ISA CRUISER

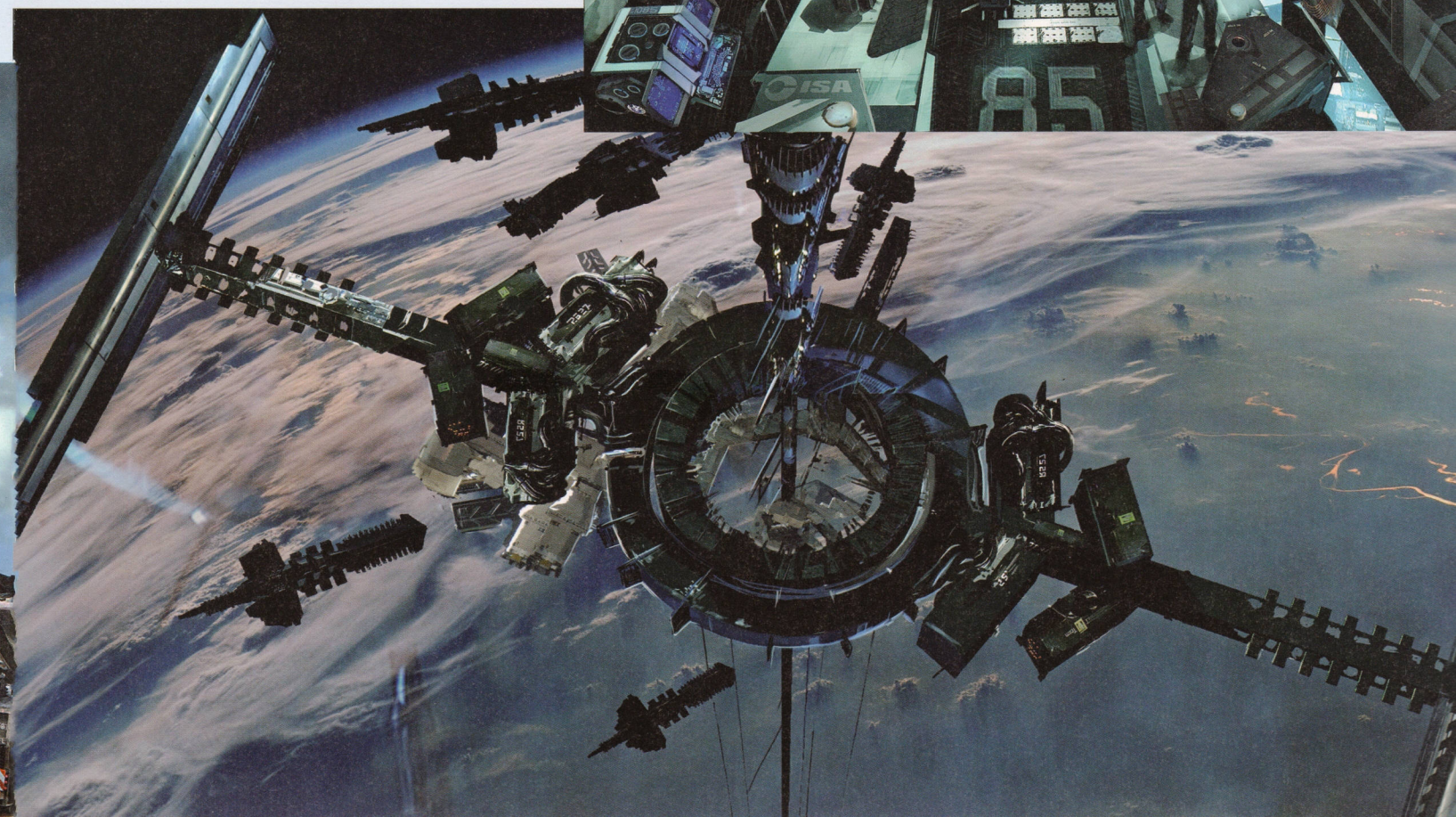
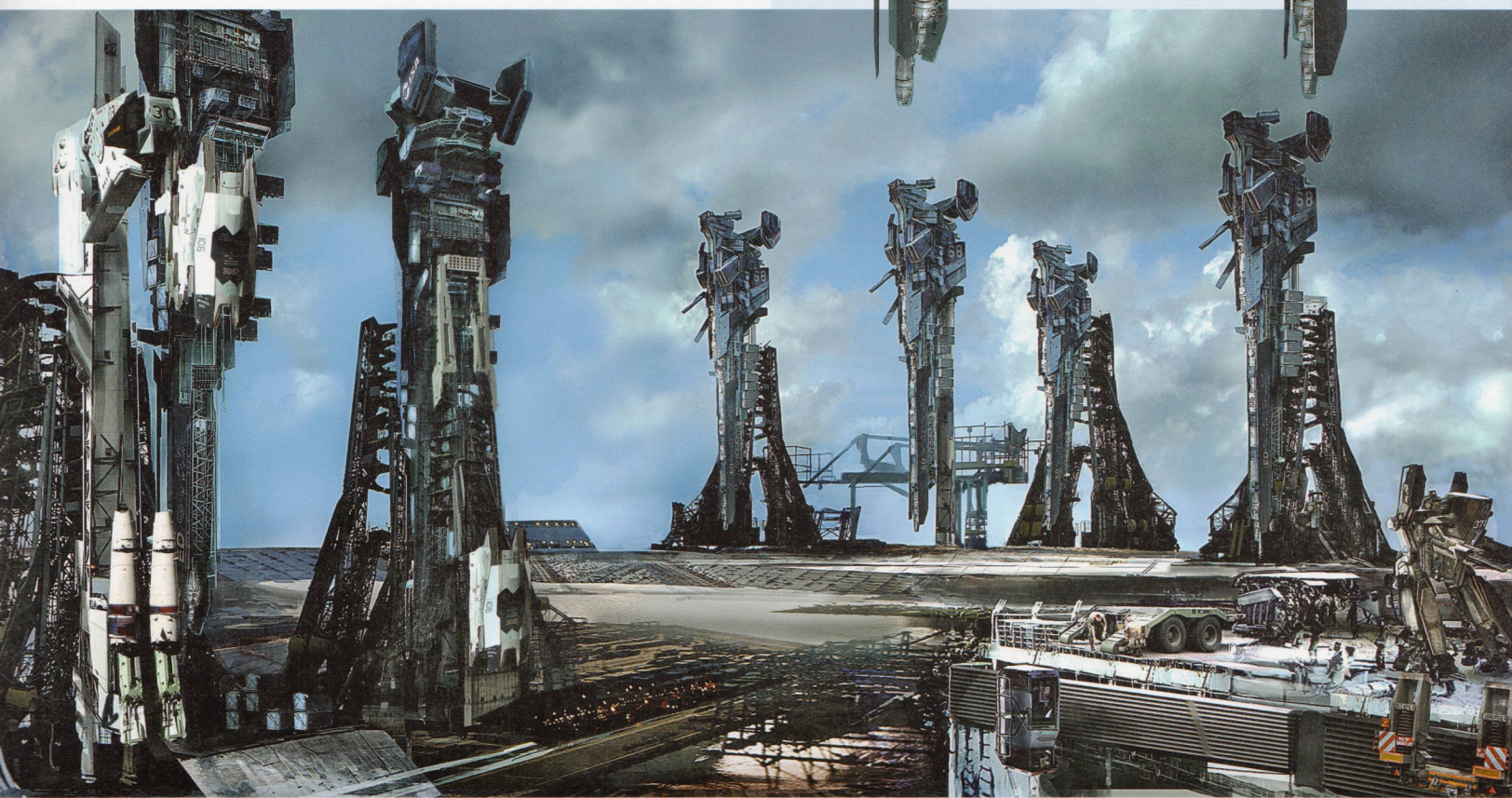
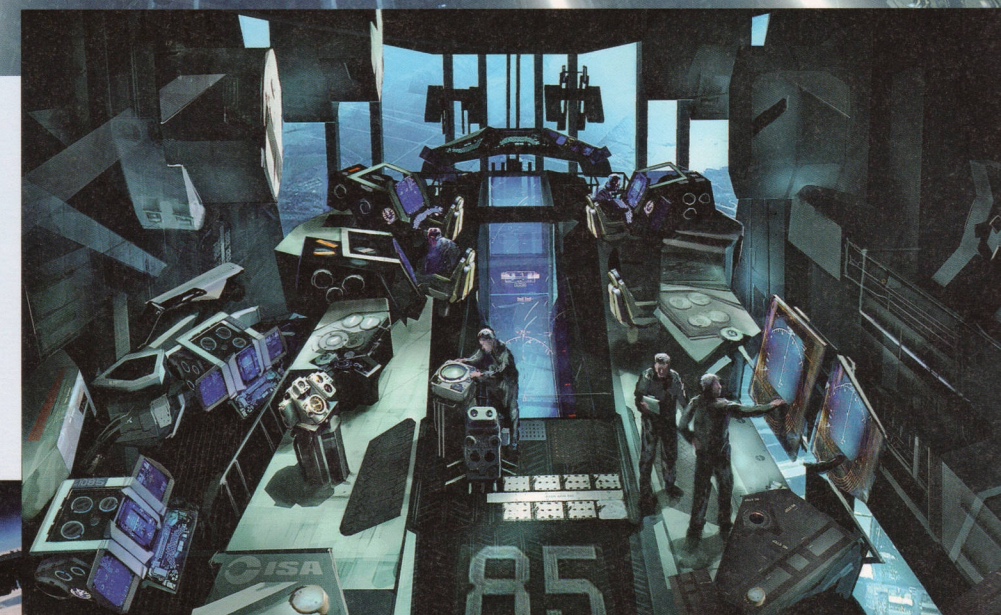
WARSHIP CAPABLE OF
TRAVELING HORIZONTALLY
(IN SPACE) OR HOVERING
VERTICALLY (IN ORBIT)

MEASURES 550M IN HEIGHT



*The deck on the interior of the control tower
is transparent, allowing to target the massive
gun and discuss tactical information over the
objectives.'*

Miguel Angel Martinez | Principal Visual Designer

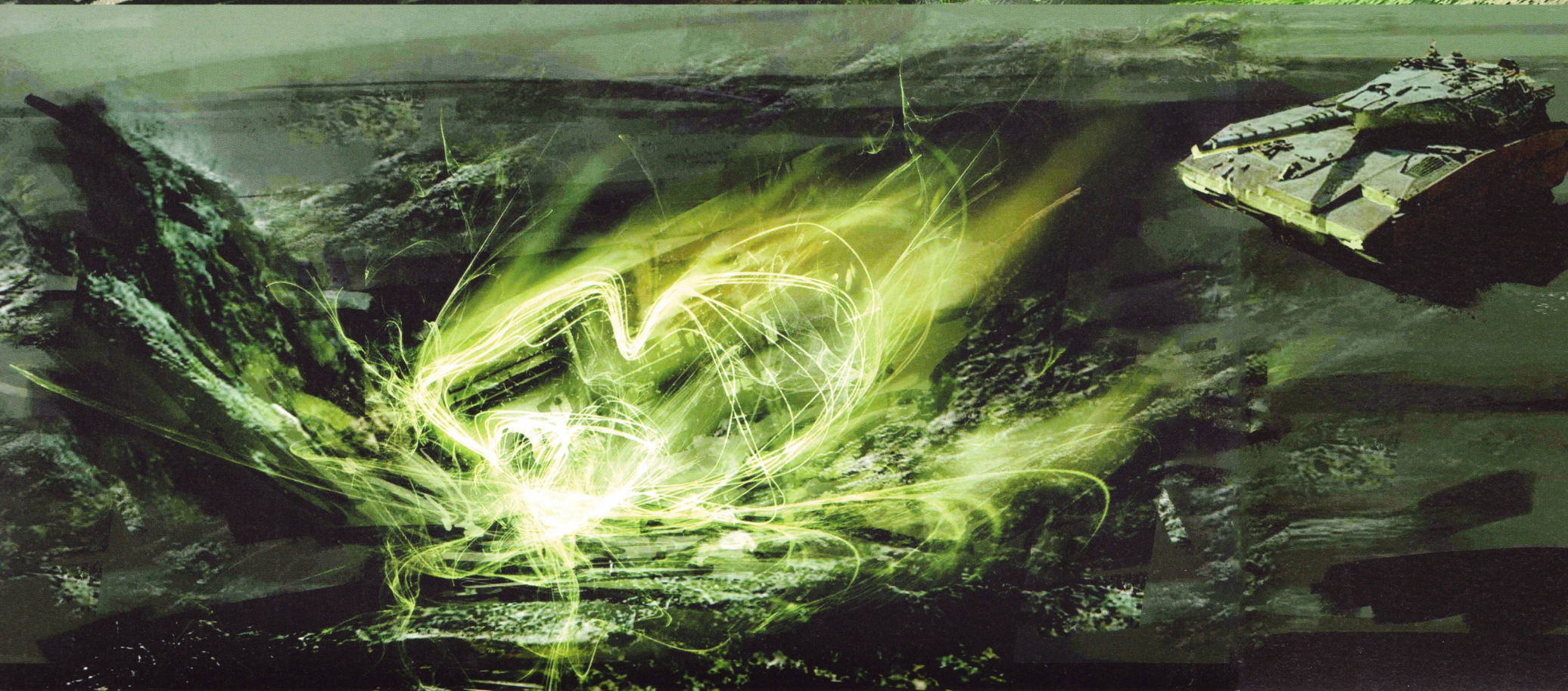
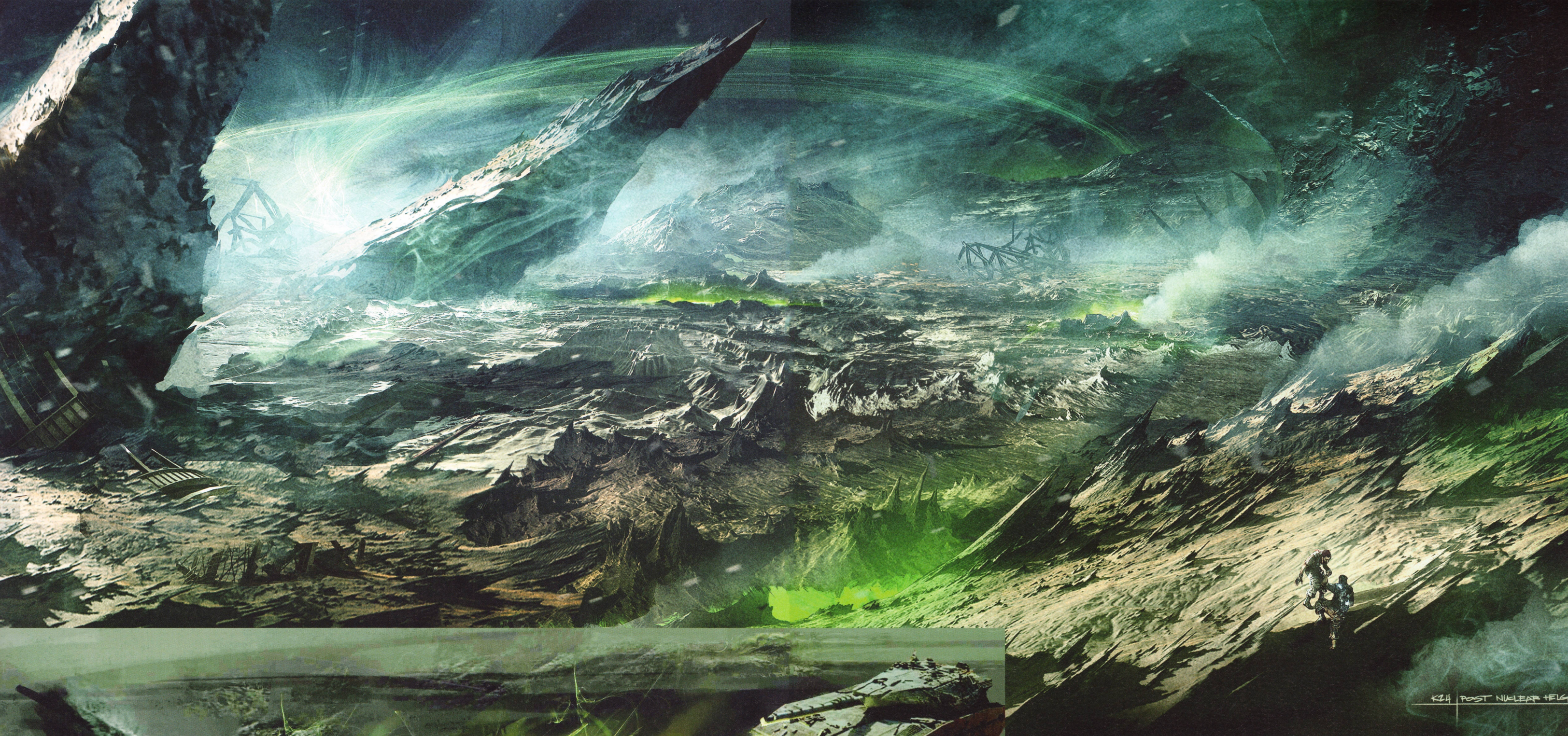




PETRUSITE
HARVESTING GRID

WETARY-WIDE NETWORK
OF MINING SPIRES BUILT
TO EXTRACT PETRUSITE
FROM HELGHAN'S CRUST





'The Killzone universe does not know any lasers or other types of real-world energy weapons. All weapons are fairly conventional. It's all about bullets, shells, and rockets. There is one exception to this rule, and that is petrusite. All 'magic' in the Killzone universe is ultimately derived from the properties of petrusite. It can bend space and time, it can power spaceships, it can make you invisible, you can build bombs out of it, and blow up planets. And you can shoot it at people and zap them into oblivion.'

Projectile traces ionized path towards target



2 | Arc Cannon fires electrical arc that follows

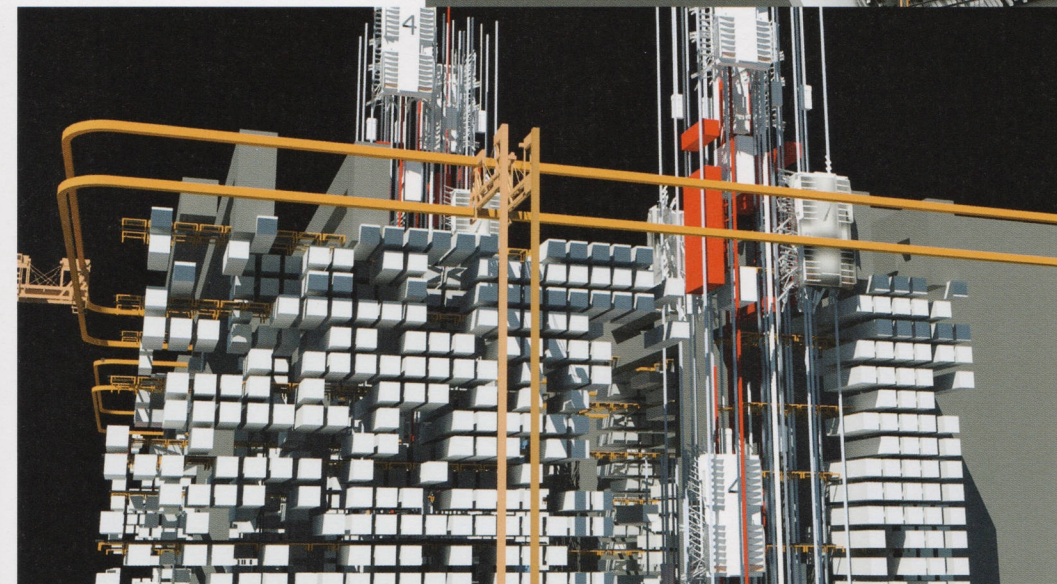
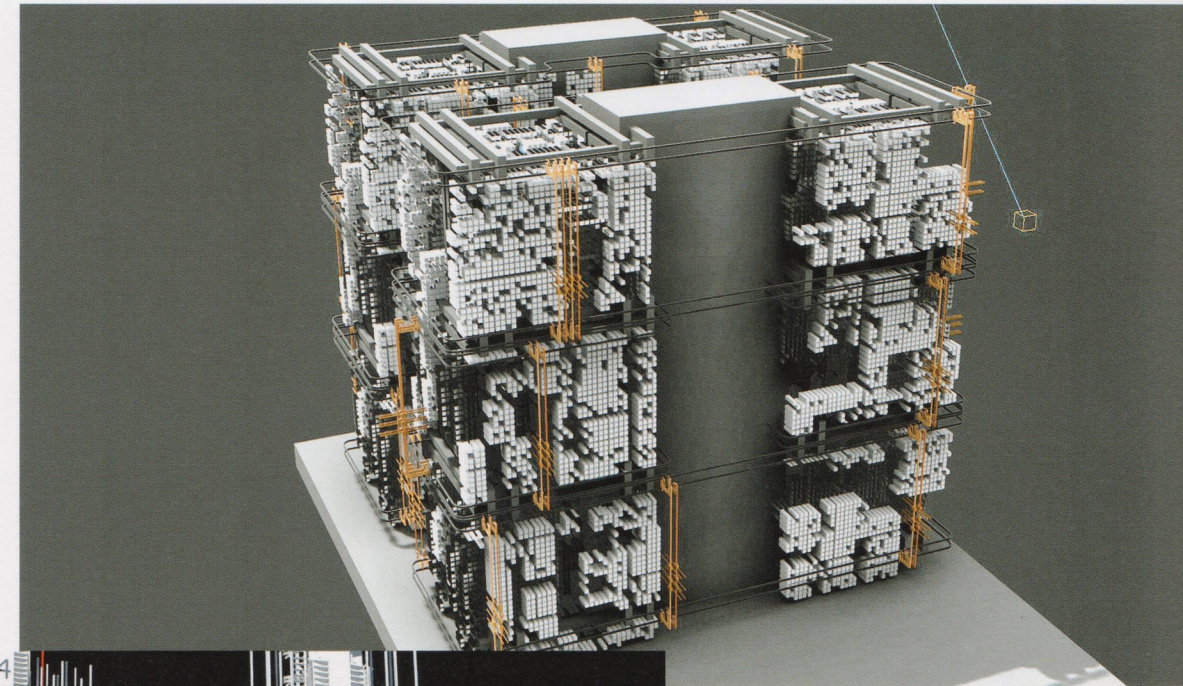


Electrical arc fries everything it touches



4 | Panels on Arc Cannon open to vent excess

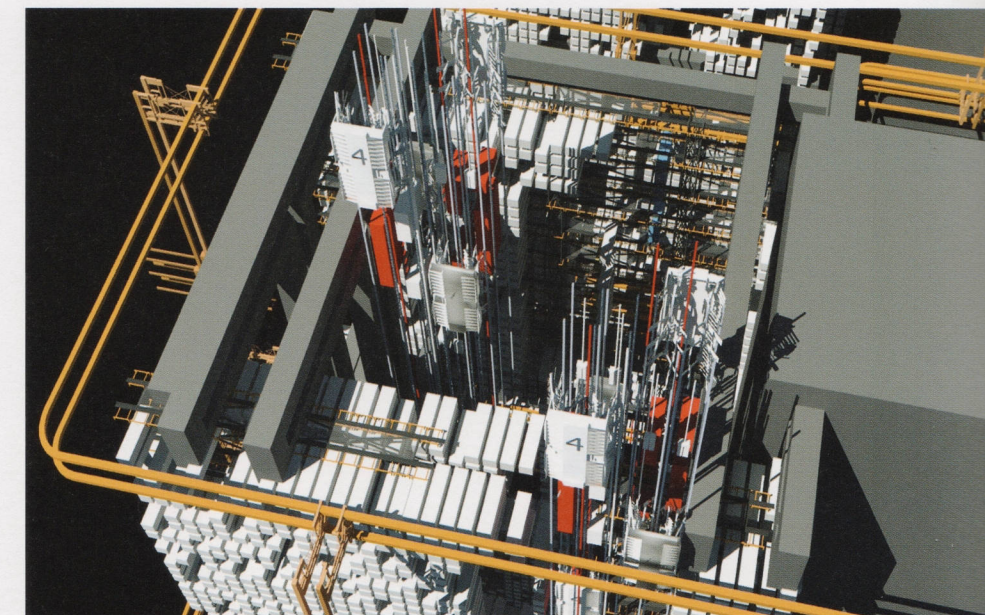




'The container system was originally part of an industrial facility, built under the city of Vekta. After the Helghast were exiled to a part of the city, the top layer of shopping malls and luxury condos was dismantled and launch towers were installed, turning it into a big interstellar transport hub.'

'We wanted to give the player a sense of great activity, without actually knowing what went on. The Helghast are regrouping after the loss of their home planet, but to what goal? We never explained what was in the containers, adding to the mystery. Sometimes they are heavily guarded, suggesting they contain something the Helghan don't want ISA to see.'

Misja Baas | Art Director



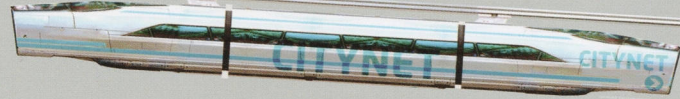


PRIVATE CONTAINER

NOT FOR PUBLIC USE VIOLATORS WILL BE PROSECUTED

VEKTA TRAINS

PASSENGER



CARGO



VEKTA TRANSPORT

DUORAIL SYSTEM TRAIN IS CONNECTED TO TWO RAILS, WHICH ENABLES IT TO TRAVEL HORIZONTALLY AND VERTICALLY







WHAT GOES UP, MUST COME DOWN_

An enormous amount of studio time, budget and energy is spent on the noble art of getting stuff to blow up, topple, crash, or implode in the right fashion. Designers are careful to show the player the impact their bullets or grenades have, and use everything at their disposal to enhance that experience: from animations of flying debris, fire and smoke, to audio of explosions and rattling guns, and from shaky 'camera' work to rumbling controllers.

The possibility of destruction means most objects must be designed multiple times: for every in-game 3D model of a building or vehicle, there's at least one destruction model. By definition, these are harder to design than objects in their clean state. Broken objects show their underlying construction, the inside details that usually stay hidden from the player's view. In addition, there's the impact itself to take into account: the slant angle, size, and velocity of bullets differ from shot to shot.

But there's more than just the effects of war. Objects in the *Killzone* universe are subject to environmental conditions as well. Many designs show the impact of neglect or material degradation: iced oil rigs with white facades, or rusty vehicles on a scrapyard. Broken and barren as they may seem, their designs require the same amount of attention as their still operational counterparts.

'Interior space shootout, two sides taking cover, flanking, maneuvering. Gun-mounted spot lights casting volumetric light beams. Concrete walls ripped open. Glowing holes in metal panels, sparks with every impact. Grenade goes off, tiles on the wall smash, glass breaks. Larger scale destruction, dust settles, fire burning, smoke filling the corner of a room. Light falling in through broken windows high up. HGH gets hit in the chest, pink mist, dust and blood spurts, HGH is blasted backwards. Dynamic props on shelves shot up, shit falling down.'

Internal document | Art Benchmark Proposal K2 Shadow Fall



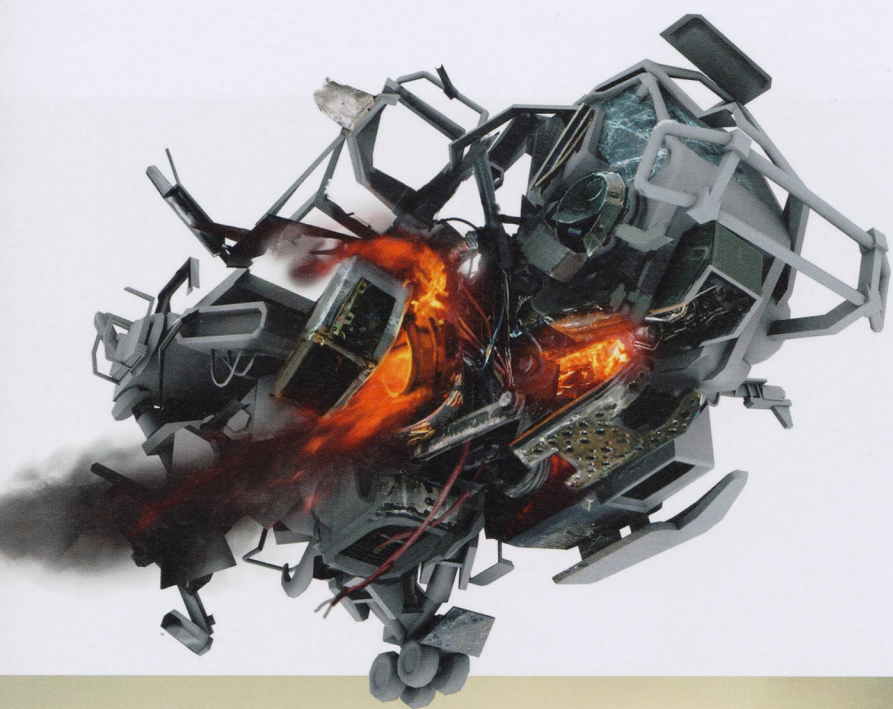




'There's often beauty in the way things are broken, warped, and misshaped, and things like stains, scratched paint, and other damaged materials give attractive textures to otherwise less interesting elements. But the most important property of destruction is in storytelling: when you encounter shrapnel from a blast throughout a level, and it has a consistent blast direction, you know something big has happened nearby.'

Maarten van der Gaag | Art Director





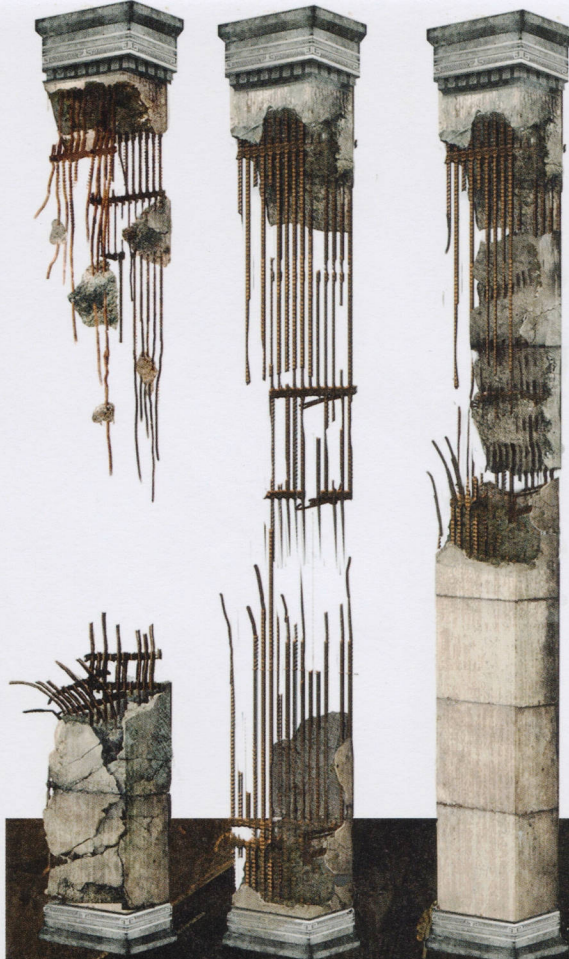
'When you use 'every bullet has an impact' as a design rule, you are obliged to make your environments interactive. And once you take this route, you're obliged to show construction details that stay hidden under normal circumstances. Mechanical bits in vehicles are usually protected, but break vehicles apart and they reveal their insides. Destruction shows construction, and tells you a lot about how things were put together.'

Roy Postma | Art Director









'Designing broken things is more costly than the unbroken item. A complex interior leads to more textures and geometry, technically speaking. You need special effects to show the destruction happening, and need to place your items with care, on places where it is likely a bullet or explosion is going to hit them: compared to non-destructible objects, it's a much heavier task for the engine to draw objects that we design to be destroyed.'

Maarten van der Gaag | Art Director



REBAR TYPES

- TEXTURES THICK BARS
- SMOOTH THIN BARS
- THIN WIRE THAT TIES THEM TOGETHER

RUST

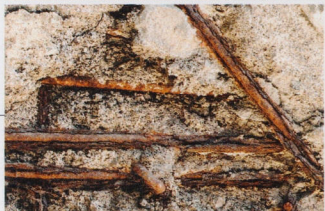
- OLD RUST LAYER PEEL OFF
- RED RUST STAINS ON SURROUNDING CONCRETE

RUBBLE INGREDIENTS

- BRITTLE INNER CHUNKS
- OUTER LAYER CHUNKS
- REBAR
- BITS OF CRAP / METAL / PLASTIC
- DIFFERENTLY COLORED PEBBLES

REBAR LAYERING

- ROUGH / BRITTLE / CRUMBLED
- SMOOTH / FINE CRACKS
- OFTEN FORMS A SQUARE GRID
- HOLDS CHUNKS OF CONCRETE



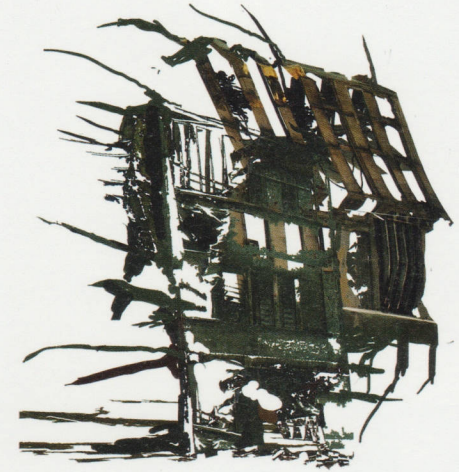
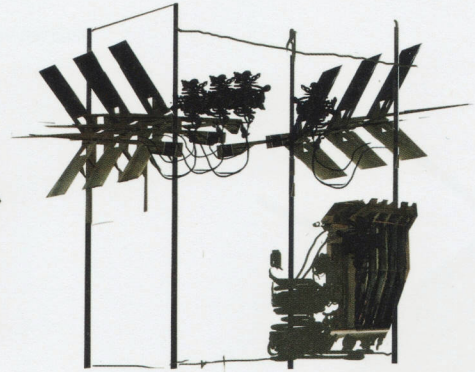
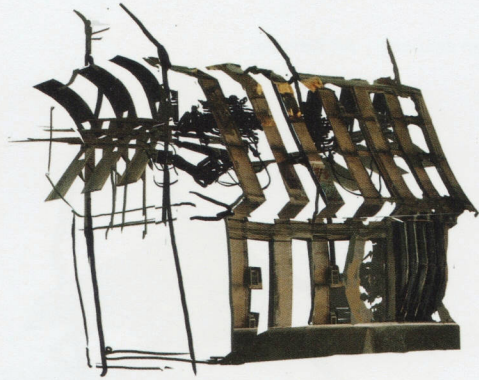
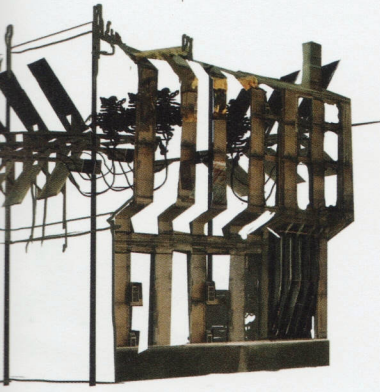
INTERNAL STRUCTURE

NUKED STRUCTURE

FUNCTIONAL ELEMENTS

FUNCTIONAL ELEMENTS

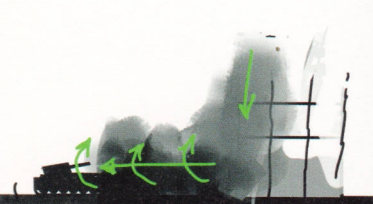
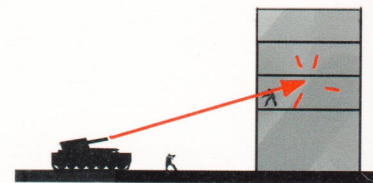
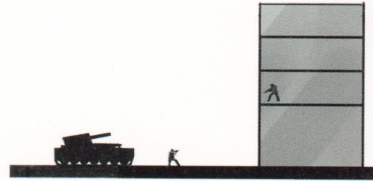
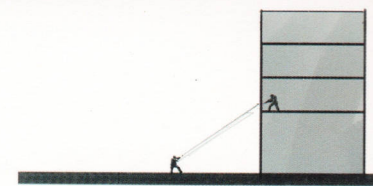
THE DESTRUCTION
SHOWS THE INTERNAL
FUNCTIONALITY OF SOME
OF THE DESTROYED
BUILDINGS



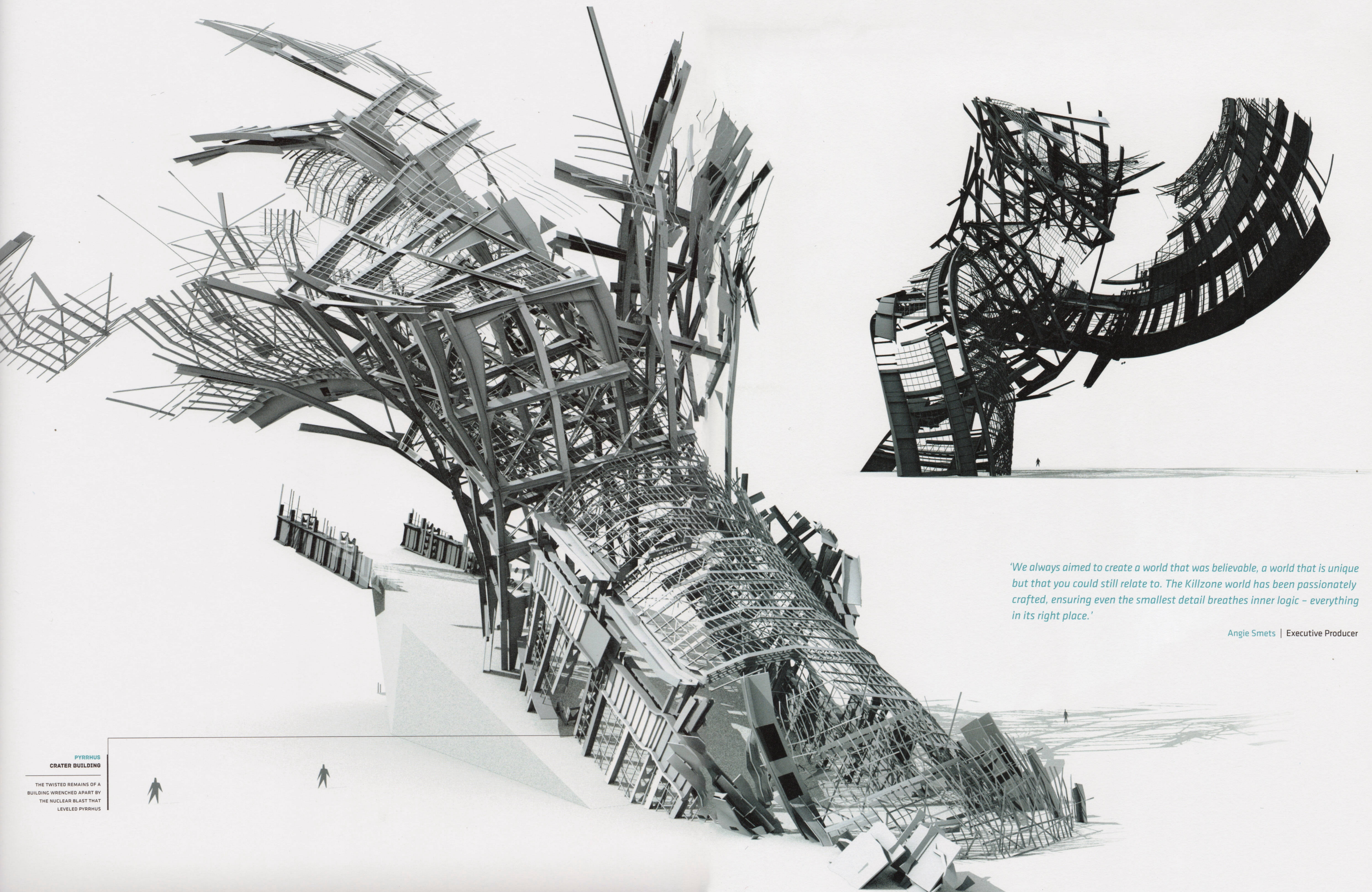


'High up on Palace Hill, there is no direct blast damage, but the district has been bombarded with shrapnel from the blast site. Large chunks of metal and concrete ranging from the size of a refrigerator to a car have been thrown several miles from ground zero into the district, where they have ripped through buildings and left large scars across the buildings' facades.'

Internal Document | Story & Art Styleguide K23







**PYRRHUS
CRATER BUILDING**

THE TWISTED REMAINS OF A
BUILDING WRENCHED APART BY
THE NUCLEAR BLAST THAT
LEVELED PYRRHUS

'We always aimed to create a world that was believable, a world that is unique but that you could still relate to. The Killzone world has been passionately crafted, ensuring even the smallest detail breathes inner logic – everything in its right place.'

Angie Smets | Executive Producer



KILLZONE DEVELOPED BY_



Lennart Jurgen Tibor Jeffrey Richard Roderick Marcos Stuart Eric Steven Jolyon Iain Jonathan Brian Sebastian

Vincent Hugo Anthony Justin Mari Desmond Miguel Espen Paulus Ursi Sjoerd Erik Stefan Paul Erik Klaas

Tommy Kasper Remco Edwin Kjetil Floris Arjen Frank Robert William Wiek Guillermo Joris Nati Daniel

Tommy Mathijs Kasper Chaime Dennis Aki Faried Cho Yan Stefan Malcolm Steven Pepijn Dirk Victor

Sytho Steven Edward Tobias Lucas Dennis Robert Sandro Meindert Arjan Michel Rudine Jacco Rudy Lucas Solomon Jorrit

Salvador Oscar Ken Willem Chaime Stefan Thomas David Kasper Niels Jeffrey Guido Ingo Jeroen Sem Mark Martijn Will

Michal Andreas Nathan Marnix Alex Hylke Robert Tim Mathijs Eric Aaron Andrew Rob Floris Simon Doug Stuart Malcolm

Sjors Vaggelis Blake Laurens Chu Yan Maarten Andrejs Michel Koen Bas Robert Felix Lennart Marijn Dennis Kim Deane

Edward Gilbert Bryan Martijn Victor Marianna Gordon Yan Susie Iki Tamis Micha Edouard Elco Paulus Andrea Neil Francesco

Steven Philip Iain Jonathan Geert Bart Henk Francois Richard Mario Lucas Roel Attila Seb Michael William Rob Jesse Jorrit

Leonardo Maxwell Bart Daniel Oliver Willy Jordy Delano Metta Yvonne Nasier Niek Ray Johan Miriam Jeroen Ryan David

Jurgen Erik Justin Andrew Nick Thomas Maikel Paulo Michael Xavier Peter Dominiq In-ah Victor Evyn William Monica Brant

Lambert Lidija Khaled Lucas Martin Rob Alistair PJ Troy Dan Chris Josh Bart Jonathan Blake Laurens Nicolas Hylke Robert

Jad Tim Alex David Paul Ken Willem Chaime Thijs Gary Kasper Guide Nathan Will Michal Dominik Sam Mark Josez Misja

Maarten Andrejs Koen Lucas Gary Melissa Craig Ben Ryan Ben Jacob Bryan Nicholas Nasier Yan Martijn Alex Rudy Mao-Lin

Fabien Julian Cesare Dirk Andrius Vladimir Hakan Ben Niels Vincent Francois Nick Mario Lucas Anton Michael William Tim

Adriaan Maxwell Gerald Rogier Kris Ruud Marlon Daniel Christian Gael Victor Nino Mark Stuart Jason Laura Jason Tony

Matthew Piers Roel Jordy Malcolm Ivanka Fabio David Jorry Adrian Menno Roberto Rick Luke Julian Ivaylo Wouter Hylke

Robert Carles Mika Tim Niek Kevin Karim Bas Francois Johanna Remi Andrea Daniele Perry Dan Alex Nasier Tim Yan-Fu

Vladislav Madina Benjamin Arno Lloyd Ilya Joseph Jorry Koen Dennis Rob Alastair Simon David Blake Brian Laurens Yiming

Cho-Yan Mingfei Kim Amir Lucas Sofia Ben Patrick Ryan Jacob Osman Bo Bryan Tiffany Sander Steven Nick Tyler Fabien

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Luc Magdalena Niels Piers Tim Rowan Sam Berendine Tomas Veronica Mathijs Michiel Patrick Maxwell Hermen Arjan

Roy Michiel Angie Manu Roland Jan-Bart Mariska Nasier Arjen Martin Hans James Gino Nick Jeroen Tom



Thank you

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